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ABSTRACT

This study of higher education efficiency evaluation consists of five country reports from five different regions of the world: Colombia, Jordan, Malaysia, the Netherlands, and Nigeria. The reports describe the approaches to the evaluation process in each country and in the process highlight common concerns and awareness. The studies were all commissioned by the United Nations Educational, Scientific, and Cultural Organization and provide an overview of the various evaluation procedures, mechanisms and instruments currently in force in the selected countries which are intended to measure the efficiency of systems and institutions of higher education in relation to their specific economic, social and cultural roles. Each report presents one of the studies and proceeds by describing the general evaluation philosophy and methodology, the procedures at the national level and procedures in a representative sample of institutions with a conclusion analyzing the efficiency of the mechanisms at various levels. The book's concluding chapter provides an analysis of all the studies taken together. That chapter points out the striking diversity among higher education systems while arguing that the commonalities are also significant. This analysis touches on national systems, the institutions, and presents seven proposals for a future, more focused study. (JB)

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New Papers on Higher Education

Studies and Research

1

Evaluation Procedures used to Measure the Efficiency of Higher Education Systems and Institutions...

A study conducted by:
The International Association for Educational Assessment

Co-ordinator:
W.B. Dockrell

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New Papers on Higher Education 1

Studies and Research

Evaluation Procedures used to Measure the Efficiency of Higher Education Systems and Institutions

A study conducted by:
The International Association for Educational Assessment

Co-ordinator:
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ED-90/WS-10

The Division of Higher Education and Training of Educational Personnel of the Unesco Secretariat produced, during 1983-1989, thirty-six titles in the series *Papers on Higher Education* (a complete list of titles appears on the last page). From 1990, this series will continue in a new form *New Papers on Higher Education* with two sub-titles one, *Studies and Research* and the other, *Documentation of Meetings*.

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Note from the Secretariat

With this number one of the New Papers on Higher Education, the Division of Higher Education and Training of Educational Personnel starts a new series devoted to studies and research dealing with higher education as a whole.

The present study has been prepared within the framework of the programme of Unesco concerning the development and improvement of higher education for the advancement of society. Within that framework, the study deals with the evaluation procedures employed to measure the efficiency of higher education, which is a recently-developed field.

It seems therefore opportune and useful, at this stage, to make an analysis of these procedures. The study consists of five country reports (Colombia, Jordan, Malaysia, the Netherlands and Nigeria) from five different regions and a final comparative analysis in a form of conclusion. In general, the nature of the study is exploratory rather than conclusive.

The text shows a diversity in approach to the evaluation exercise in the various countries and highlights certain significant common concerns and awareness. Particularly interesting are the considerations proposed with reference to efficiency and its dependance on the realtionship between effectiveness and economy, and epistemological effort that responds to a specific expectancy of the Secretariat.

Of no negligible value are the number of questions identified for the further advancement of knowledge in the field, and the valuable suggestions made in view of new actions to be undertaken in the future.

The text has been prepared by the International Association for Educational Assessment (IAEA), an international NGO, commissioned by the Secretariat.

The opinions expressed in the present study are those of its authors and do not correspond necessarily to the point of view of Unesco.

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CHAPTER ONE

INTRODUCTION

W B Dockrell, School of Education, University of Newcastle upon Tyne, England.

The UNESCO remit

UNESCO commissioned the International Association for Educational Assessment to prepare a report which would consist of an introduction; five country studies, one from each region of the world; Africa, Arab States, Asia/Pacific, Europe/North America, Latin America and the Caribbean; and a conclusion. This volume contains studies from Nigeria, Jordan, Malaysia, The Netherlands and Colombia.

The country studies were to provide an overview of the various evaluation procedures, mechanisms and instruments currently in force in the selected countries which are intended to measure the efficiency of systems and institutions of higher education in relation to their specific economic, social and cultural roles.

Each study was to focus on such evaluation procedures, mechanisms and instruments:

a) at the level of national bodies in charge of higher education institutions; and

b) at the level of higher education institutions.

For this later purpose a representative sample of institutions could be chosen for analysis.

The procedures, mechanisms and instruments in question should be those designed to measure efficiency in the areas of:

a) economic, eg the cost of higher education in terms of national economics, including the training of necessary specialists and the strengthening of research potential;

b) social, eg the contribution of higher education systems and institutions to the development and advancement of society;

c) cultural, eg the role of higher education in the promotion and development of the cultural life of the country and of the individual, specifically in the context of World Decade for Cultural Development.

A possible structure of the chapters reporting the national case studies was first the general evaluation philosophy and methodology, second the procedures at the national level and third the procedures in use in a representative sample of institutions. Finally each national report was to conclude with an analysis of the efficiency of these mechanisms both nationally and at the level of institutions, their functioning, their quality, their results and their impact on decision makers.

A final chapter would consist of suggestions for the development and improvement of procedures at both national and institutional level and also the possible role of international and regional bodies, including UNESCO, in evaluation. This later section should consider tasks and problems where international or regional co-operation might be appropriate, especially in the light of disparity between industrialised and developing countries.

Planning the Study

IAEA commissioned the editor of this volume to plan the study while its Executive Secretary made contact with the individuals and institutions which would contribute the national reports. After consulting a number of sources including the publications listed in the bibliography at the end of this chapter and Dr P M LeVasseur at OECD/CERI and Professor M Kogan at Brunel University the guidelines for regional studies were drafted.

The draft guidelines were circulated to the executive of IAEA and a number of changes incorporated in the final version. They were also submitted to UNESCO to ensure that the plan was in accord with their requirements.

Guidelines for Regional Studies

Introduction

We have been commissioned to produce a series of regional case studies. The purpose of case studies, as Cronbach points out, is not to provide general findings but to produce detailed descriptions of local events which will help us to "develop explanatory concepts". What is required of us therefore, are detailed descriptions of the procedures in use in our own countries.

These guidelines are not exhaustive. There may well be objectives which are taken into account or criteria which are used in your country which I have not covered in these guidelines. Please include them in your report and draw special attention to them for my guidance in preparing the final report.

The important task for each of us is to record all the objectives, all the criteria and all the procedures that are used in evaluating the system and the individual institutions of higher education in our countries. Please note also any topic I have raised which is not covered in the procedures used in your country.

The study should address the full range of objectives for higher education:

a) teaching, numbers of students enrolled, areas of study and proportion graduating;

b) research, the amount that has been carried out, the use made of it and the recognition accorded to it by the scholarly community, contribution to national economic or social development;

c) services provided to the community, continuing education for, or consultation to, industry, agriculture, commerce or public services like medicine, education or the law;

d) cultural or spiritual development, for individuals by extension classes, by exhibitions or musical or dramatic performances or the enhancement of specific cultures by scholarship or other means;

e) support to particular social groups by increasing their access to higher education, by recognition of their culture or by according to them a higher status in the general community than they previously enjoyed.

Studies of this kind conventionally distinguish among effectiveness, economy and efficiency. Our study should include all three. Effectiveness asks whether objectives have been achieved.

Economy is concerned with cost. It asks what are the direct and indirect costs of the system, what expenditure there is from public or private sources, what income is foregone. What is the cost of the institution and possibly the cost of its various activities. The relevant questions relate to operating and capital expenditure; to direct costs of salaries and materials and to indirect costs like shared facilities such as libraries and administration.

Each case study will have three sections. The first will consist of a description of the evaluation process as it relates to the operating of the system as a whole, the second a description of the application of evaluation in a sample of higher education institutions and the third will review the evaluations, their functioning, quality, results and impact in accord with the UNESCO guidelines for the study.

Section 1

The first section will report what is done to assess the efficiency of higher education as a whole. What bodies decide the questions which are to be asked; what the questions are; what evidence is gathered to address them; how the information is gathered; what structures are used to gather the data; at what stage and by whom it is interpreted; who this information is supplied to; and whether the exercise is costed.

What bodies are responsible for the evaluation of the system of higher education? A ministry or section of a ministry? A religious organisation? If so, what is its status, responsibilities and staffing? If evaluation is delegated to a commission or foundation what is its membership, responsibilities and staffing?

What official statements are there of the functions to be evaluated? What laws, official publications or memoranda of ministries or minutes of committees? Are the various functions of the system brought together as a coherent whole or described separately?

What specification is there of the particular information to be collected in official documents or in letters of instruction to institutions?

What procedures are used to gather information? Surveys, questionnaires, visitations, less structured and more impressionistic requests for information? Include examples of these materials.

What categories of persons is the information obtained from?

What organisation or organisations actually gather the data? Is it, for example, a unit within a ministry or one established to service a national committee? Give a brief description.

In what form is the information reported? As raw data, as general conclusions or a combination of both? Give examples.

At what stage is the interpretation made? By whom, by those gathering the data, by others in the unit responsible, or by those to whom it is supplied?

Who is the information supplied to? For what purposes is it used? Allocating resources? Deciding priorities?

Is it made generally available? Is it published officially? Is it made available by limited circulation? If so to whom? Is it made available on request? If so, is access restricted?

What is the cost of the evaluation exercise if available? If no cost is made public, is a precise or general costing made?

Much of the data for this section will be available from public sources, laws, white papers, reports of governmental and official or unofficial bodies. Some of it may have to be obtained by interview with ministers, civil servants, members or officials of committees or commissions.

After an initial survey of resources you may wish to contact me to discuss the next steps.

Section 2

The second section will provide information from a sample of higher education institutions about the data that is gathered for internal evaluation and how it is used. How do the institutions monitor themselves?

The nature and size of the sample will obviously differ considerably from case study to case study. All kinds of higher education institutions should be included, public and private, college, polytechnic and university. Please prepare a sampling frame, ie list all relevant institutions by category, and contact me about it so that we can be sure that all our case studies will be comparable.

The contents of the section will be similar to those for section one but will refer to the gathering and use of information by institutions for their own purposed.

These procedures may well overlap those used for the evaluation of the system and may be used similarly or differently..

What are the functions of the individual or body responsible for evaluating efficiency, for example,. the range of duties and responsibilities of the rector, vice-chancellor or other official, or the senatus or other body?

What is the status and what are the other responsibilities of those who actually gather the data?

What are the objectives of the evaluation? What is the range of issues addressed? Enclose examples of documents which cover these points.

What specific information is gathered? Include examples of the full range of procedures used, questionnaires, requests for general information, interviews.

From what categories of persons is the information gathered, administrators, academic staff, research staff, general support staff (eg librarians, computer service staff), others?

What is the structure used to gather data, which office or unit of the institutions is involved?

In what form or forms is the data reported? At what stage is an interpretation made and who makes it? Who is the data supplied to? What use is made of it? Who else is the information available to?

Is the exercise costed and is the cost made available? For those of us in a university or college information about our own institution should be most easily accessible and that should be the first institution studied, perhaps as a pilot. Documents should be gathered and interviews about the nature and use of the data should be requested with the official responsible or the chairman of the committee. It is important to cover the full range of functions of higher education institutions in this section as in the previous one.

You might wish to contact me after the initial study of your own institution and before proceeding to study any other institutions.

Section 3

Section three will relate the procedures at both the system and individual level to the full range of possible functions of higher education. Functions not covered in the evaluations are as important as those included. It must be clear in this section to what extent each function is addressed and the weight given to each in the evaluation. Please contact me after completing the data gathering and before beginning section three.

Conclusion

Please contact me about any point that is not clear or any problems that arise. I will be making three visits to South East Asia while the study is in progress, in March, in April and in May. I would be happy to arrange my itinerary to include visits to Malaysia, Jordan or Kenya if that seemed desirable.

The Regional Studies

While potential contributors were quickly identified and contracts signed difficulties arose for a number of contributors. One withdrew and a substitute had to be found. A second failed to produce a report and again a substitute had to be found. These unfortunate circumstances delayed the completion of the report.

The authors of the national studies faced a number of problems not fully foreseen when the study was proposed. First was the need to describe the system of higher education in their own country. Systems vary considerably from country to country and it is necessary to know what a particular system is like before the evaluation procedures can be understood.

Second the relationship between particular institutions or categories of institutions and the national authorities can very considerably within a single system, especially where there is an extensive private sector, considerable regional responsibility or substantial institutional autonomy.

Third, the notion of evaluation is not highly developed everywhere. At national level the criteria may not be specifically formulated and the procedures may, at best, be rudimentary. At institutional level evaluation may be completely informal but highly effective nonetheless.

Fourth, the range of responsibilities, especially social and cultural aims, may vary considerably from country to country and institution to institution.

It is, of course, the purpose of case studies to reveal such differences and to draw attention to unanticipated variables either because they are essential to understanding the issues in particular contexts or as a basis for a more general study. These reports illuminate the range of aims to be evaluated, of circumstances in which the evaluations are conducted and of functions for which they are carried out. They also provide the understanding which is the necessary basis for a broader study that could sample systematically a much greater number of higher education systems.

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CHAPTER 2

A STUDY OF THE EVALUATION PROCEDURES USED TO ASSESS THE SYSTEMS AND INSTITUTIONS OF HIGHER EDUCATION (THE COLOMBIAN CASE)

By: Luis Eduardo Urego and Antonio Ospina C., Instituto Colombiano Para Fomento De La Educacion Superior.

With the promulgation of Decree-Law 080 of 1980 the Higher Education System underwent some re-structuring, both in the educational formats and the areas of knowledge, administrative and financial aspects under which the higher education institutions of that period had to be directed.

In order to gain a comprehensive view of the system, in this introduction we will provide a summary of the number of institutions and programs, enrolment in the first course, the number of graduates in Higher Education and the number of teaching positions. Some aspects that will be synthesized to deal with the research that is being conducted, the services to the community, the cultural development and the support to specific social groups.

Number of Institutions - Number of Programs

The number of Higher Education institutions in 1979 was 121. In 1988 there were 235; that is counting both private and public institutions. The increment was 194%. The growth in the number of private institutions is faster than that of public ones: while there were 48 public institutions in 1979, we found 69 in 1988 and in 1979 the number of private institutions was 73 and 166 in 1988. This represents an increase of 144% and 346% respectively.(1)

According to the previous figures, the growth of training programs also shows great acceleration:

In 1979 by going from a total of 1,061 programs to 2,171 the system experiences an increase of 205%. In this case too, the increase is more noticeable in the private sector than in the public one.

Whereas the public sector increases at a rate of 176% (541 programs in 1979 and 951 programs in 1988) the private sector's rate of growth is 235% (520 programs in 1979 and 1220 in 1988).(2)

(1) ICFES. Statistics of Higher Education. Jan-June, 1988, page 8.

(2) ICFES. Ibid. Page 7.

A more discriminating analysis, for example, of institutions according to their educational arrangements could reveal their trends, thus indicating where their growth is heading. It would be interesting to analyse this phenomenon because the hypothesis that the educational system is entering a stabilization stage could be formulated.

Growth of Student Enrolment

As the System of Higher Education allows the registration of the same applicant any number of times he/she wishes to register in the institutions he/she wants to register and the programs he/she finds fit, the statistics concerning applications tend to lose their value, especially as an indicator of the students preference when choosing a specific program at a specific institution.

The following chart summarizes the total of registered students according to educational arrangements and their source (private and public).

Chart 1. Evolution of registration according to educational arrangement and source 1979-1988.

From ICFES: Statistics of Higher Education. Jan-June 1988

Educational format and source	1979	1988
National Total	267,885	457,680
Public	121,448	186,329
Private	146,437	271,351
PROFESSIONAL-TECHNICAL	-(3)	35,380
Public		3,301
Private		32,079
TECHNOLOGICAL	15,736	58,954
Public	8,606	35,096
Private	7,130	23,858
COLLEGE	248,317	353,539
Public	110,598	143,308
Private	137,719	209,231
GRADUATE	3,832	9,807
Public	2,244	3,624
Private	1,588	6,183

From the previous chart one can infer that the registration total reflects the same expansionist tendency of institutions, where one can see how the public sector is overtaken by the private sector.

(3) This occurs in 1980 for the first time.

Graduates from Higher Education

Graduates from Higher Education follow the characteristic trends of the two previous variates, except for the fact that here the growth is more accelerated; while in the public sector the number of graduates is twice as many in a decade, in the private sector it is five times as many. (4)

Teaching Personnel in Higher Education

In 1988 there are 47,990 people teaching in the Higher Education Sector, 26.9% of these are working full time and the ratio is noticeably higher in the public institutions. Both the public and private sector have the same ratio of part time personnel: 9.7%. 63% are per hour teachers. The ratio is much higher in the private sector.(5) It is evident that the differences are qualitative and quantitative and while the public sector makes efforts to increase the number of full time personnnel, the private sector is doing the opposite. As far as administration personnel is concerned, there are 16 students for each individual in the administration. This figure means that every time a teaching post is created, it is necessary to do likewise in the administrative department.

(4) ICFES. Higher Education and Development. Volume 1. January-March 1982.

(5) ICFES. Statistics of Higher Education.

Study Areas

Decree-Law 080 of 1980 establishes the following areas of knowledge that for 1988 recorded the following total registration:

Chart No. 2. Students Registered according to Areas of Knowledge 1988

AREAS	TOTAL REGISTRATION
Agronomy, Veterinary Medicine and Similar	13,054
Fine Arts	11,232
Educational Sciences	98,467
Health Sciences	42,459
Social Sciences, Law and Political Science	52,968
Economics, Administration, Accounting and Similar Areas	116,611
Humanities and Religious Science	2,815
Engineering, Architecture, City Planning and Similar Areas	111,101
Mathematics and Sciences	8,973
NATIONAL TOTAL	457,680

Source: ICFES. Statistics of Higher Education. Jan-June 1988.

Note: the number of inhabitants of the nation this year is approximately 28,000,000.

In the range of areas of knowledge, three great groups of areas can be outlined: the first, the one with the fastest growth and which stands out, is constituted by the area of Economics, Administration, Accounting and similar areas, by the area of Engineering, City Planning, Architecture and similar areas and by the area of Educational Science, which together receive 71.26% of the total registration.

The second group of areas is constituted by Health Science and Social Sciences, Law and Political Science whose registration amounts to 20.8% of the total

registration in the system and the third group of areas with the slowest growth constituted by the areas of Agronomy, Veterinary Medicine and similar areas,

Fine Arts, Mathematics, Natural Science, Humanities and Religious Science, which together represent 7.74% of the national total.

Educational Formats

Decree 080 stratifies the system of Higher Education in four educational formats:

The Professional Technical Format

This format has not been able to find an identity of its own within the System of Higher Education and it has been questioned numerous times because of the training level of its professionals (4 academic semesters) and the lack of scientific research foundations that may provide an answer to the various development problems that the nation is experiencing.

Even though registration in this format reaches only 7.73% of the total registration in the system, it is significant as a result of the fact that its trend is towards training in the areas of Economics, Administration, Accounting and similar areas, thus belying its philosophy of training people to perform concrete technical and instrumental tasks.

Technological Training Format

This format is necessary and important within the productive system of any nation as a result of the answers that it can provide to the innovation and

adaptation of technologies that are compatible with the progress evident in the various areas of socio-economic development in the contemporary world.

However, this format has a slow development. The total registration reaches only 12.88% of the total with a stiff demand of programs in the areas of Ecnomics, Administration, Accounting and similar areas which are precisely not included within the range of technological professions whose function is to train for the "performance of technological activities with emphasis on practice and the scientific principles that support it", according to Decree-Law 08. (Duration: 6-8 academic semesters).

College Education Format

This format was created in 1980 with a philosophy of social and humanistic contents, ascribing special significance to the scientific and instrumental aspect of its academic programs and emphasizing the science-research foundations of its training and action.

For 1988 this format represents 77.24% of the total registration in Higher Education even though the tendency of previous formats is maintained when it concerns the number of students registered in the programs of Economics, Administration, Accounting and similar areas representing 2.1%.

A decade after the Reform of Higher Education was promulgated, some evaluations, results of the permanent process of evaluation of the programs that constitute this format, can be proposed.

Some institutions with a high degree of relative development have initiated a review of their curricula, looking for a flexible structure that will allow them

to train a professional who can meet the needs of regional development, in agreement with the socio-economic development plans of the government; this has meant a redefinition of the concepts of training, with emphasis on the social aspects-humanistic, specific professional and science-research. In spite of this emphasis, the training curricula stand out as a result of their tendency to professionalize, and neglect the training in the realm of basic sciences, which would allow the future professional to have a basic cognitive structure to provide answers to the most diverse questions arising from the changing technology.

The requirements made upon the programs as a result of the process of evaluation have allowed the institutions to grow somewhat, both in physical (labs, shops, libraries, practice centres) and human resources. The latter however, especially in the private university is still being resolved through the hiring of part-time (per hour) professors.

To be highlighted is the fact that when the process of evaluation has been systematic, the system of Higher Education is seen to lack the process of evaluation that could supply answers to the questions asked about its internal and external efficiency and its quality as an essential basis to point to policies and directions in agreement with the development of the nation.

Graduate Training Format

It is the highest level of Higher Education. Its objective is to prepare people for research and scientific activity or for specialization. Research constitutes the foundation and the scope of this format. Of a total of 457,680 students registered in Higher Education in 1988, only 9,807 (6) (2% approximately) are enrolled in graduate studies. This is an insignificant figure, not only as the

result of its numbers but also because of its quality because when research becomes an ideal these studies become updating courses. Universities could relaunch them as services to be provided to the community or as continuing education or as a consulting service for industry, agriculture, business or public services such as medicine, education or legal services.

(6) ICFES. Statistics of Higher Education. Jan-June 1988.

In order to propel research forward at the university and particularly graduate studies to attach them more securely to the true needs of development, the "PROGRAM FOR THE DEVELOPMENT OF RESEARCH CAPABILITIES" was launched. This program intends to thrust forward, within the Higher Education realm, a process of academic and research development that consists of stimulation to the scientific production and support of knowledge through financial aids necessary for the consolidation of basic research structures in institutions of solid academic background.

It is oriented toward the strengthening and creation of programs of advanced training on the level of Master's degrees whose research projects coincide with the national objectives such as more energy independence, more agriculture produce and nutritional potential, improvement of the level of health among the population in general, more transportation and communications and more scientific and technological capacity. (7)

At the moment it would seem premature to initiate an evaluation of its efficiency and quality because its effects are to be appraised on the long term and bearing in mind the development process of the nation.

(7) ICFES. Program for the Development of Reseach Capabilities. Bogota, 1988.

Night Education

In the analysis of Higher Education, especially concerning efficiency and quality, night education has been ignored although it represents approximately 27% of total registration and it maintains, as well as day time education, an increasing supply of programs in the areas of Economics, Administration, Accounting and similar areas. This compels a special analysis especially concerning its quality and as a result of the social mobility that it provides by becoming a stepping stone for the advance of the working class of the nation.

Long Distance Education

This alternative was part of the previous administration headed by President Belisariou Betnacourt (1982-1986). Its objective was to enlarge and diversify educational choice, with an innovating ideal, (it scarcely draws 13% of the total registration) and its tendency is towards decline and to offer more of the same and its quality as a Decree Law 80 came into being. This set of norms, besides providing the legal foundation for the evaluation that underlies the inspection and monitoring, was useful to identify the components, variants, indicators and criteria of the evaluation.

Within the organic structure of ICFES, the Academic Vice Presidency is in charge of the academic evaluation of programs at institutions of Higher Education and it establishes criteria and applies instructions to carry them out. The Academic Vice Presidency annually sets up a program of Evaluations which it carries out

with an External Evaluator, generally sought among the Higher Education institutions in the country and an officer of the Academic Vice Presidency. From the results of the "in situ" evaluation, a report is submitted. This report is subsequently analysed by the Board of Directors of (1) ICFES, which decides whether to approve the programs or not.

(1) The Board of Directors of ICFES is presided over by the Minister of Education and it consists of representatives of private and public universities of the nation and by the Director of ICFES.

SPECIFIC INFORMATION REQUIRED FROM INSTITUTIONS

The evaluation of academic programs by ICFES is a comprehensive process of internal and external appreciation. Besides, in its follow up procedures of investigative and comparative characteristics, both evaluators and executors cooperate. Its objectives and criteria are based upon futuristic focus. Thus the evaluation of programs is appreciative in the sense that presupposes a value accorded to the object as a consequence of the knowledge acquired about the latter and beginning with objectives and criteria reached previously. Consequently, the objectives are expressed as ascending goals toward the achievement of higher standards of quality, and efficiency of programs so as to offer increasingly solid formation.

Before the evaluation visit, information about the Administrative (2) aspects of the institution is requested: its administrative structure, the management of the program and the advisory bodies.

Curriculum structure: justification of the program, professional profile, objectives and study plan.
Students: student population, absorption rates, retention and dropouts, number of graduating classes, graduates.

Resources: teaching, assistant personnel, library and newspaper library, labs and workshops, educational aids, practice fields, physical plant, budget.
Research activities of the program: research project means of support, mechanisms of financing, publications.

Plan to develop the Program
(2) See Guide to Information Requested. Enclosure 1
Students Welfare
Self-Evaluation
University Extension: What the program does to project itself toward other programs within the University, other universities and the community in general.

This requested information must be sent to the Academic Vice Presidency of ICFES before the evaluation visit is performed.

Procedures to obtain the Information

The process of external evaluation is carried out through a methodology characterized by stages of approach to the stage of the program, to evaluate it, and the identification of components and variants for which some advise is needed.

The stages of the evaluation process require the analysis of determined sources of information and take steps that facilitate a systematic task.

Stage of Document Analysis. This stage comprises: Study of Records. In this stage the result of previous evaluations is re-examined, the documents requested previously are studied. If the program has undergone any changes in the area of objectives, methodology, training format, curriculum, shifts, etc, they are analysed too.

Study of Current Situation. The trajectory of the program is compared to its current situation. The first tentative explanations are given about the efficiency of the program and the emphasis of the visit is determined, this allows the selection of the external evaluator bearing in mind the fact that his academic training and teaching experience correspond to the nature and orientation of the program and the emphasis upon it. Once an evaluator is selected - usually from a prestigious institution - he/she is instructed as far as the methodology to be applied during the evaluation and the corresponding documents are handed to him/her for analysis and study.

Stage of Direct Contact. At this stage the evaluation commission gets information from various sources: personnel managing the program, administrative and teaching personnel, students, graduates or the community, personnel from the administrative and academic areas of the university and from the analysis of the documents in the files of the institution.

The procedure goes from observation and checking of the components to the outline of an initial explanatory opinion that carries the initial conclusion concerning the efficiency of the program.

Stage of Evaluation Consolidation. Here the coordinator of the Evaluation Visit bases himself on the preliminary conclusions of the previous stage and, using the report of the external evaluator, he/she analyses every one of the components of the program, writes the final report, gives his technical opinion and the appropriate recommendations.

Stage of Decision Making. Bearing in mind the institutional policies of ICFES (The Board of Directors, Management, the Committee fof Management, Planning Committee and the Academic Vice Presidency) and after having examined the report from the ICFES evaluator and that of the External Evaluator, the results of the evaluation lead to: accreditation, whether it is for a licence to operate or to authorise a new program. In such case, the Board of Directors issues an agreement that validates legally the program or approves the program in order that the instituion may confer the corresponding diploma.(*)

The results of the evaluation may also lead to advice and follow up of the program, in such cases there must be a previous analysis of the needs, a specific advisory plan and its program follow up results.

The use of the results of the Evaluation

The reports of the evaluations carried out are finally sent to the Academic Files and become public documents. Copies of these reports are sent to the institutions whenever they are requested. At the moment, efforts are being made to computerise the information concerning these programs to set up a qualitative

*In some cases (renewal of approval) the Board of Directors of ICFES delegates the Director to perform it.

data base and using the program "micro-isis", whereby in the future the information to evaluate the efficiency of the Higher Education system will be easier as a whole.

The Cost of External Evaluation

The fee of the evaluation of an Academic Program is never higher than US$500.00 dollars. This must be looked upon as a way to improve the quality of Higher Education in the nation.

SECOND SECTION

INTERNAL EVALUATION

GENERAL CONSIDERATIONS

Together with the process of external evaluation, (hetero-evaluation), ICFES has been encouraging Higher Education Institutions to examine themselves internally (self-evaluation) as a means of looking at themselves and making decisions through institutional planning that will lead them to improve their academic programs.

Even though this challenge has been understood differently by various institutions, bearing in mind the self-evaluation reports submitted, some of them have likened the objective of the evaluation to systematic strategy while others have used with qualitative models. Their decisions have revolved around modifications or restatements of a curricular nature or administative financial sort. The institutional evaluation to assess the impact of Institutions upon the nation has not been proposed as a goal to them.

The model of self-evaluation proposed by ICFES, to which many institutions have adhered, is briefly described herein.

The Basic Concepts: Self-evaluation is considered a dynamic process of analysis and critique applied to each and all of the stages of institutional development and the institution itself. It implies confronting what the institution "is" and "what it should be" within the university context, and it promotes the continuous improvement of the university and the changes required by the community.

Self-evaluation allows the university to get to know its reality, establish a follow up policy of its plans to get some feedback and confront its objectives with the results.

Methodology: Prior to a definition of a self-evaluation model to be followed, the university must have clarity concerning its philosophical principles. Besides, it must encourage a favourable attitude among management, administrative personnel and students so that all of them will support the self evaluation process. This must be accompanied by a political decision from the Students' Council and count on support from the administration in order to have adequate organization. The most appropriate form of self-evaluation for Higher Education Institutions has been to acknowledge them as an open system thus giving the study a systems approach.

Once this model has been determined, four sub-systems have been identified: MANAGERIAL, ACADEMIC, ADMINISTRATIVE and WELFARE.

The Operation of the Model: The initiation of the evaluation starts with a philosophical statement where the norms of constitution of the institution are approached and a qualitative and quantitative analysis over its area of influence is carried out on the basis of institutional objectives (context evaluation).

The processes and products of each of the following sub-systems are studied: management, academic, teaching, research, extension, administration and welfare sub-systems.

Once the sub-systems are defined, the next step is the operation of the model to determine the indicators and instruments of measure (copy of which is annexed).

In order to point to the level of development of a variant, patterns of comparison are established. Therefore, two situations appear: whenever there is no DEVELOPMENT PLAN at the institution, an inter-institutional comparison is carried out and when the institution does have a development plan, the comparison is intra-institutional based on the standards fixed for the objectives.

Finally the analysis of the results is made through patterns of compatibility among concept variants and sub-systems.

The final report on the results of the self-evaluation is analysed later by the Committee that organizes the process of self-evaluation, which sends it to the Higher Council of the Institution, which circulates it through the committees of curriculum of the corresponding academic programs in order to facilitate the appropriate decisions of academic characteristics.

Below is a synthesis of reports of evaluation submitted by five institutions and which represent a wide range comprising from technical training institutions to private and public universities of religious and lay characteristics. The background, priorities, components and results for each one of them were submitted.

(1) JAVERIANA UNIVERSITY. Private University of Religious Characteristics. Located in Bogota.

BACKGROUND. It has been a leading institution in the field of self-evaluation. In 1984 (1) a group of administrators initiated the study of self-evaluation as a process inherent to university activities.

PERIODICITY. At the moment the University performs the self-evaluation in all of its departments with various approaches and rhythms but it is an ongoing process.

(1) Javeriana University: The Process of Self-Evaluation at Javeriana University. Bogota, 1985.

COMPONENTS. The model of self-evaluation is based upon the theory of systems and it was initially tried at the Faculty of Interdisciplinary Studies (FEI) and it includes the following components: the context (internal and external), the resources (human, physical, financial), organization, processes and results (teaching-learning, students, services, research and internal programs).

RESULTS. The process of reflection has led to the strengthening of the feeling of "belonging" among all the elements of the University. Even though self evaluation yields results as it is implemented, caution is recommended when these results are to be applied.

(2) LOS ANDES UNIVERSITY
Private Higher Education Institution

BACKGROUND. Self-evaluation is carried out through academic programs. For instance, the Physics program was evaluated as a result of the recommendations that came out of the visit performed by ICFES in 1985.

PERIODICITY. Self-evaluation is done periodically each semester by conducting surveys among the students in the basic courses or through personal contact with advanced and graduate students.

COMPONENTS. The results of the process of self-evaluation have permitted: the careful selection of applicants, the establishment of definite working goals, the

quest of help from various national and international entities and the improvement of the material infrastructure of the department.

(3) COLOMBIAN POLYTECHNIC "JAIME ISAZA CADAVID"
Pubic Technological Training Institution

BACKGROUND. The process of self-evaluation has been promoted by the Institution as a component of institutional planning.

PERIODICITY. By becoming a component of planning, self-evaluation has become part of the system in the yearly programs that the institution offers.

COMPONENTS. The emphasis is made on the academic aspect of the programs through a reflexion process that is centered around the Curriculum Committee of each program with the participation of Heads of Departments who are responsible for the organization, management, control and evaluation of academic- administrative activities in their respective programs. Self-evaluation constitutes a permanent activity without necessarily having a specific model.

RESULTS. These are reflected in the decisions that are made concerning the curriculum focus of the program, its objectives, the professional and academic profile and the specific resources of the program. The results lead to the recommendation of development plans for the corresponding programs concerning advancement and publication, technological specialization, the establishment of links with employers, enlargement and improvement of laboratories, research plans and new updating strategies of the curriculum. (3)

(4) GRANCOLOMBIANO POLYTECHNIC

Private Technological Training Institution

Self-evaluation has been required by the government as a condition fof the approval of the academic programs.

PERIODICITY. The process was initiated in 1983 in two stages: the first was required by ICFES, and it comprised academic and administrative modifications of the institution. The second was incorporated as a process of institutional development.(4)

COMPONENTS. The model adopted follows the outline of the systematic model proposed by Roger Kaufman (Planning of Educational Systems). From the operation point of view, the responsibility of the process was given to the Curriculum Committees of each program and the Academic Committee was given the task of general coordination so as to have some unity in its objectives.

(3) Grancolombiano Polytechnic "Jorge Isaza Cadavid."

Report on self-evaluation. Medellin, 1986.

Even though the model is being applied entirely, the administrative, economic and financial aspects were considered for a later stage but keeping the theoretical elements of the model: context, processes, resources and products.

RESULTS. The reviewing of the curriculum (academic aspect) was the first practical result. The same happened concerning evaluation and training of teachers. The results allowed the institution to project and reaffirm its identity in the labour market.

(4) Grancolombiano Polytechnical. Report on self-evaluation. Bogota,1984.

(5) CORPORACION UNIVERSITARIA (CORUNIVERSITEC)

Technical Training Institution

BACKGROUND. Self-evaluation was begun in 1986 as a result of requirements by ICFES to guarantee the academic standing of the programs.

PERIODICITY. CORUNIVERSITEC is a new institution but it has incorprated self-evaluation as a strategy necessary for institutional planning, decision making for planning, the institutionalization of the process in all its areas, levels and units.(5)

(5) CORUNIVERSITEC. Self-evaluation model. 1987.

COMPONENTS. It utilizes a systematic approach that takes into account the context (social, cultural, political, economical, educational, legal) the institutional analysis (theological, philosophy, objectives, development plans, regulations), structures (administrative, academic, economic, and financial), logistics (physical, human and financial resources), functional (graduates, science, technology and community services).

RESULTS. These have been concentrated on modifications of the study plans, introduction of new elements of educational technology concerning a more efficient communication of knowlege and the institutionalisation of fora, updating courses and continued education.

SECTION 3. CONCLUSIONS

In the last decade Higher Education in Colombia has undergone quantitative but not qualitative remarkable growth. The explanation of the growth of higher education is provided by the accelerated growth of the population within the age range where higher education is required and the expansion caused by the higher number of high school graduates besides the constant annual growth of urban population.

Furthermore, the development of the country has generated the need of new techniques, specialized knowledge and better qualified personnel. A new middle class with desires to improve its social standing has also come to the fore.

The increase in the number of Higher Education Institutions and different programs does not mean that the problem has been solved as far as literacy rates, efficiency and quality are concerned. In fact, when the latter are compared to those of other Latin American countries, they are quite low. The average number of graduates leads to the conclusion that the system offers low achievement rates. The preference of students for traditional programs: Medicine, Engineering, Law, Economics, Administration and the university education has yielded great imbalance in a saturated labour market. Most of the programs are concentrated in 5 cities across the country. Bogota, the capital, absorbs more than 40% of the total population.

A significant fact is the large number of people studying in the evening. This means that most of these people are working during the day.

On the whole higher education has very little impact on the renewal of Colombian society. This is the result of the fact that education is limited to transferring knowledge and techniques and research is marginal without any tangible linking to the national reality. Besides, there is no dynamic interaction between university research and the productive sector.

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CHAPTER 3

EVALUATION PROCEDURES USED TO MEASURE THE EFFICIENCY OF HIGHER EDUCATION INSTITUTIONS

THE CASE OF "JORDAN" Dr Farid K Abu Zeineh, University of Jordan
Faculty of Education

Jordan is a Middle Eastern Country, but unlike most of its neighbours, it has very limited natural resources. The population of Jordan is about 3,100,000 with a growth rate of 3.9% per year. More than 56% of the whole population lives in urban areas, and only 23% of the population is economically active.

Jordan as a legal and political entity has existed since 1921 when the Emirate of trans Jordan was carved out of Palestine by the British. The Emirate was later transformed to the present-day Kingdom of Jordan ruled by the British until 1946.

In recent years there has been an accelerated economic growth as a result of the heavy investment in the public and private sectors.

This pace of development has been tempered by instability in the Middle East and by Jordan having to shoulder a major part burden of the Palestinian problem.

General and Basic Education

General education in Jordan aims at helping the individual understand various aspects of his environment, develop basic skills of communication, and grow physically, intellectually and emotionally to contribute fruitfully to the development of society.

Educational objectives ensure the importance of education to comprehensive national development.

Therefore, education is integrated into the total social economic needs of the country and education is considered as an instrument of social and economic advancement of individuals.

The Ministry of Education holds full responsibility for general education in Jordan. To achieve the aims and objectives of education, the Ministry maintains responsibility for formulating general policy, overall planning and curriculum development. The Ministry supervises public schools and controls private and foreign schools in Jordan.

Jordan has 9 years of compulsory education. Children of 6 to 15 years old are required by law to attend public or private schools. Children start their elementary education at the age of 6 years. The six year primary cycle is followed by 3 years of preparatory education and by secondary education for three more years (grades 10-12). Education at the secondary level is provided by general secondary schools, comprehensive secondary schools and vocational secondary schools.

Increasingly, greater attention is being given to vocational education. The Ministry of Education is experimenting with comprehensive schools where the curricula include a mixture of academic and vocational education. In addition to comprehensive schools there are vocational schools at the secondary level.

At the end of their secondary education, students take a general examination. Those who pass the general examination are entitled to pursue their higher

education in Jordan and abroad. The following table shows the numbers of students who took the general examination and those who passed in the school year 1987/88.

Table 1

Numbers of Students who sat for the General Examination and those who passed: 1987/88

Stream	Numbers	Passed	%
- Academic	44,465	24,997	56.2
Science	14,842	10,184	68.6
Arts	29,623	14,813	50.1
- Vocational	07,318	04,345	59.4

Higher Education in Jordan

Higher Education in Jordan aims at:"

(1) Raise good responsible citizens who are proud of their past and their heritage, and who are interested in human issues and values.

(2) Provide individuals with knowledge and skills necessary to carry out responsibilities conferred upon them.

(3) Ensure the provision of manpower needed for the economic, social and cultural development plans.

(4) Support scientific research and tie it with the needs of the society and development plans.

(5) Strengthen the scientific, cultural and technical cooperation in the area of higher education and research between institutions in Jordan and outside.

(6) Encourage the use of Arabic Language as a language of science and instruction in higher education and to encourage research, writing and translation to and from Arabic.

(7) Make sure that students of higher education master at least one foreign language to serve as an avenue through which they could keep in touch with process in their field of study.

*Ministry of Higher Education: Legislation, 1987 (in Arabic)

Higher education in Jordan is provided by 54 community colleges (two years of post secondary education) and four Universities: the University of Jordan established in 1963; Yarmouk Univrsity established in 1976, Mu'ta University established in 1985, and The University of Science and Technology established in 1986. The community colleges provide education and training for approximately 31,000 students. The Universities accommodate about the same number of students at the different levels.

In addition to these numbers more than 33,000 students continue their higher education abroad.

Table 2 shows numbers of students, faculty and graduates in the four Jordanian Universities:

	Level	UJ*	Yarmouk University	Sc. & Tech. University	Mu'ta** University	Totals
Faculty	PhDs	642	256	174	100	1179
	MA/MS	72	90	12	10	184
	Totals	721	346	186	110	1363
Students	BA/BS	12965*	9637	2716	2545**	27863
	MA/MS	1621	652	123	-	2396
	Diploma	952	250	-	95	1297
	1st year	3624	2957	718	840	8139
Graduates	BA/BS	2238*	2522	372	238	5370
	MA/MS	196	62	37	-	295
	Diploma	301	184	-	52	537

* There is a PhD program at the University of Jordan (No. of students: 61: graduates: 5)

** There are two sites at Mu'ta University: the civil site (No of students 1962) and the military site (No of students 1453)

It is important to point out that higher percentage of the enrolments are in the different fields of arts and humanities (56.8%). Students majoring in basic and applied sciences account for about 33.2% of the total population of University students.

Table 3 shows the distribution of University students according to their specializations.

Specialization	No of Students	1st year Students	Graduates
1 Arts and Humanities	15049	4893	3270
2 Basic and Applied Sciences:	8545	2484	1411
Basic Science	4389	1367	746
Agriculture	1052	299	208
Engineering	3104	818	457
3 Medical Sciences	2809	792	342
Totals	26403	8139	5023

In comparison with the numbers of students at the Jordanian Universities, an approximate number of 33,000 Jordanian students continue their education and training in institutes of higher education abroad. These are distributed according to the following areas of specializations:

A - Medical Sciences and Engineering	13,800
B - Basic Sciences and Agriculture	4,000
C - Arts and Humanities	13,800
D - Miscellaneous	1,450
Total	33,050

A classification of 20,239 students studying abroad was done according to level is shown below:

1 – PhD: 475 (Engineering: 98, Medicine: 76)

2 - MA/MS: 914 (Engineering: 70, Medicine: 242)

3 - Diploma: 723 (mainly Engineering and Medicine)

4 - Intermediate Diploma: 852 (mainly Engineering)

5 - BA/BS: 17275 (Engineering and Medicine: 9288)

(Sciences: 1684: Humanities: 6203)

Community Colleges in Jordan provide two years of training and education after the secondary education.

Area	Public			Private			Totals		
	1st year	2nd year	Total	1st year	2nd year	Total	1st year	2nd year	Total
Education	1396	3152	4548	5084	3544	8628	6466	6696	13156
Engineering	115	1056	2208	578	537	935	1730	1413	3143
Medical	426	381	807	1046	881	1927	1472	1262	2734
Sciences									
Business	962	298	1260	2464	2652	5116	3426	2950	6376
Computer Science	149	-	149	1132	-	1132	1281	-	1281
Others	428	482	910	287	179	466	715	661	1376
Totals	7411	5379	12790	10592	7613	18205	18003	12982	30985

Community Colleges: Faculty

Degree	Public	Private	Totals
PhD	27	63	90
MA/Diploma	181	268	449
Others	214	352	566
Totals	422	683	1105

Higher Education: Organisation and Administration

A: The Board of Higher Education

The Board of Higher Education was established in 1982 in order to assume responsibility of planning and coordinating higher education in Jordan.

The Board was established in accordance with a special law to determine the general policy of higher education and follow up its implementation. The Board continued to carry out its responsibilities as an independent entity until the establishment of the Ministry of Higher Education in May, 19, 1985. A law of higher education was declared in 1985. This law replaced the law of the Board of Higher Education mentioned above.

The rights and authorities of the Board of Trustees in each University is transferred to the Board of Higher Education.

The Board of Higher Education is formed with the following membership:

- Minister of Higher Education (Chairman)
- Chief of Staff (Commander of armed forces)
- Minister of Education

- Minister of planning
- Presidents of Jordanian Universities
- Representative of public community colleges
- Representative of private community colleges
- 6 more members appointed for 3 year term.

The Board of Higher Education performs the following responsibilities and exercises the following powers:

(1) Approves the establishment of higher education institutes and types of studies in them

(2) Approves plans of higher education institutes and propose priorities

(3) Decides the different major field at all levels of instruction in higher education and coordinates them

(4) Finds sources of funds to support Universities and determines the basis of distributing and investing these funds

(5) Establishes the basis on which students are admitted in higher education, and determines the numbers accepted in each major field each year

(6) Discusses annual reports of higher education institutes and their achievements

(7) Approves the annual budget of the Universities.

B: Ministry of Higher Education

The Ministry of Higher Education was established in order to implement the government educational, cultural and scientific policies within the institutes of Higher Education ie Universities and community colleges in the country.

According to the Law of Higher Education, the Ministry of Higher Education will undertake te government's educational, cultural, and scientific policy by the following means:

(1) Through educational planning according to the needs of society, planning for the establishment of higher education institutes and areas of specializations and enrolments
(2) Support the autonomy and independence of Universities
(3) Directly supervise higher education in institutions other than Universities (community colleges) in order to provide the trained man-power needed for development plans
(4) Contribute towards supplying higher edcuation institutes with human and technical resources needed
(5) Prepare studies and projects on all that concern higher education and its development

The Ministry of Higher Education takes over all responsibilities and supervision of community colleges.

The Ministry of Higher Education consists of six departments. Two of these departments are:

(1) Development of higher education department, and
(2) Community Colleges department.

The Development Department includes the following sections:

- Information and statistics
- Planning, policy-making, and budgeting

- Studies and evaluation
- Research, translation and publishing
- Training and continued education
- Library

The department of community colleges consists of the following sections:

- Curricula and study plans
- Examinations
- Admission and registration
- Faculty
- Accreditation
- Supervision and follow up.

The duties of the Development Department are as follows:

- Gathering information about higher education in Jordan
- Draw up plans for scientific research and supporting it
- Prepare the Ministry plans, follow them up and evaluate them
- Propose fields of study
- Take the responsibility of continued higher education and training.

The duties of the department of community colleges are as follows:

- Planning the general policy for training the man power needed in the country
- Developing curricula and programs for community colleges
- Supervise and follow up the implementation of programs in the community colleges.

C: Law of Jordanian Universities

Article 4:

The University is a national institute of higher education and scientific research, its goals are:

- The spread of knowledge and its development, contributing to the advancement of human thought
- Providing the opportunity for studies in the theoretical and the applied fields
- Promoting scientific research and encouraging it
- Developing academic thinking, independence of thoughts, personal initiative, patriotism, sense of responsibility and group work
- Furthering islamic beliefs and giving attention to Arab-Islamic civilization and disseminating its heritage
- Serving the Jordanian community and satisfying their needs as well as contributing to the needs of other Arab countries.

Article 5:

- The University enjoys a separate legal entity of financial and administrative independence
- The University is academically independent, and for this purpose it sets its research programs, syllabus, training, award degrees, and create jobs in its scientific, administrative and technical cadre.

Article 6:

- In addition to the existing colleges the University can establish centres for education, services, consulting and training. It can also establish hospitals, applied training schools and special programs. All of these are recommended by the University board and approved by the Board of Higher Education.

Article 8:

- Every University has a Board, this University Board is headed by the president. The members of the Board are vice president, deans, elected faculty, three members of the community with one year term each.

Article 9:

The University Board assumes the following responsibilities:

- Setting University policy with the primary aim of raising the level of academic, training and scientific research in accordance with the needs of national growth
- Developing University practices in light of its policy
- Studying the yearly reports that are submitted by the president
- The coordination between the academic and the social activities of college centres and institutes at the University, and strengthening the relationship of the University with the different establishments of private and public sectors

- Discussing the University's regulations, budget and closing accounts and presenting them to the Board of Higher Education for approval.

Article 10:

The Board of Deans at the University is headed by the president with the membership of the Vice President and the Deans. This Board is responsible for the following:

- . The evaluation of the faculty's work, academic activity and research
- Discussing proposed academic plans presented by the different college Boards
- The evaluation of the level of academic achievement and standards of the University
- Define and set acceptance regulations as well as the number of students at the University in conjunction with the regulations outlined by the Board of Higher Education
- Establishing academic departments and merging departments and abiding by the regulations set by the Board of Higher Education.

Article 14:

Every college has a Board headed by the Dean of the College with the membership of the Deputy Dean, Department Heads, representatives of the faculty and two other non students.

Article 15:

Each college has a Dean responsible for the management of academic, financial, administrative matters and scientific research. He also implements the decisions of the college Board and conforms to the decisions of the Dean and University Boards.

- The Dean must also submit a report to the president at the end of each academic year showing the performances of the college, academic matters, scientific research and other college activities.

Article 18:

The University has an independent budget prepared by the president, adopted by the University Board and subject to approval of the Board of Higher Education.

The University's income is composed of the following:

(1) Tuition fees
(2) A grant allocated in the yearly budget, its share of customs and additional fees
(3) Other income.

Institutionalization of Evaluation

(1) According to the Law of Higher Education, the Board of H.E approves plans of higher education institutes and discusses annual reports of these institutes and their achievements. Plans submitted from higher education institutes are discussed and recommendations or decisions are made

concerning these plans. The Board of H.E. also approves the annual budget of each University.

To assess the overall performance of each University, yearly reports are presented to the Board and discussed there. These reports show an overview of the University present development and activities undertaken by each faculty or division.

(2) According to the Law of Higher Education, the Ministry of H.E. performs supervision and control of community colleges. Within the structure of the Ministry of H.E. two departments concern themselves with evaluation and development; the Development of Higher Education Department and Community Colleges Department.

The information and statistics unit gathers information about higher education in Jordan as well as higher education about Jordanian students abroad. These information and statistics serve as a base for planning, development, and evaluating programmes and activities. This unit prepares periodic and annual reports which are circulated and distributed to officials, administrators, planners and individual researchers.

A unit within the Development Department called Studies and Evaluation Section takes the responsibility of preparing the Ministry Plans, follow them up and evaluating them. One of the responsibilities of this unit is conducting evaluative research carried out by teams of external researches appointed by the Ministry.

The Department of Community Colleges in the Ministry of H.E. is responsible for planning the general policy, developing curricula and programs, supervise and follow up the implementation of programs in community colleges. Two units are mainly concerned with evaluation and supervision within the department. The accreditation unit is concerned with pre-evaluation of community colleges and their programs, ie. general accrediation and special accreditation. This accreditation is based upon defined criteria and guidelines. The other unit is the supervision and follow up unit.

(3) Evaluation within each institution of Higher Education begins at the department level. The Department head must submit a report to the Dean] at the end of each year specifying the activities undertaken by each faculty member in relation to teaching, research, and community services. The report suggests also plans for future development.

The Dean of each Faculty or College must also submit a report to the President showing the performance of the college and the widespread activities carried out in the college. These reports are looked at as self evaluation efforts by the department or college.

Evaluation of programs, courses and academic activities is occasionally carried out by the Department Faculty and/or the College Council. This evaluation include both formative and summative evaluation of specific aspects of academic matters.

The third cycle of evaluation done at the University level is carried out by the University Board. The president of the University submits an annual report to the Board to be forwarded to the Board of Higher Education. The report includes Unviersity performance, academic matters, scientific research, community services and other activities.

The University Board is responsible for the evaluation of the faculty's work, academic activity and research. This board is also responsible for the evaluation of the level of academic achievement and standard of the University.

Universities, as independent institutions, assume self evaluations of their performances on an annual basis and through the hierarchy outlined above.

A sample of Higher Education Institutes

Higher Education Institutes in Jordan are classified as follows:

A: Universities

There are four state Universities in Jordan.

B: Community Colleges

These colleges provide two-years of post secondary education and training in 10 different areas including more than 70 specializations.

There are 54 community colleges in Jordan; 31 of these are public colleges and 23 are private.

Three higher education institutes were selected as a sample for this study:

(1) Yarmouk University
(2) Amman College (State Community College)
(3) The National College (Private Community College)

Yarmouk University

Yarmouk University was established in 1976 in Irbid, a city in Jordan, 90 km to the north of Amman. The University consists of four schools:

- School of Science
- School of Arts
- School of Economics and Administrative Sciences
- School of Education and Fine Arts.

The University established also a number of academic and research centres and institutes, such as:

- Institute of Archaeology
- Hijjawi Technical College
- Department of Continued Education and Community Services
- Language Centre
- Jordanian Studies Centre
- Educational R & D Centre
- Islamic Studies Centre.

There is also the Department of Development and planning. Moreover, there are two Deanships in the University. The Deanship of Scientific Research and Graduate Studies, and the Deanship of Students.

The Dean of scientific research organizes and supports the affairs related to scientific research and higher studies giving the priorities to research related to social and economic development.

Here are some statistics about Yarmouk University for the academic year 1988/89.

Table 5

School	Science	Arts	Economics	Education	Centres	Total
Faculty	113	136	61	65	39	414
Students						
BA/BS	2842	3059	2549	1180		9630
1st Year	956	838	878	258		2957
Graduates	440	1062	761	209		2522
Grad Students Diploma	265	85	32	452	168	922
Administrative & Teach Staff						962

Yarmouk University is an independent national institution for higher education as was stated by the Law of Higher Education. It was established to support University of Jordan to render services to Jordan and Arab States in the areas of higher education.

The President of the University is responsible for the management of the University affairs and presenting the University Board and the Board of Higher Education with a report at the end of each academic year. The report contains academic matters, scientific research, community services and other activities in the University.

Yarmouk University has a Board whose responsibilities and authorities are specified by the Law. A committee from this Board is formed to carry over the responsibilities of the Board of Deans stated in the Law.

Each faculty of a school has a Dean and a Board. The Dean assumes the following responsibilities:

- Administering student affairs and executing University rules and regulations
- Presenting a report each academic year to the president of the
- University on student affairs, teaching and scientific research, etc.

The College Board organizes matters that concern teaching, research and guidance. This Board presents through the Dean the University Board with suggestions that contribute to the accomplishment of the college and University goals. The Board does also the following:

(1) establishes academic plans and programs at the college and presenting them to the University Board for approval
(2) supervises teaching and evaluates the academic activities in the college
(3) supervises graduate studies and scientific research
(4) prepares the budget of the college
(5) studies the report prepared by the Dean of the college.

The President of the University appoints an academic department head upon recommendation from the college Dean who is held accountable for the academic

achievements within the Department. In addition, the Department head presents an annual report to the Dean of the College and the Department Council.

Evaluation Procedures at Yarmouk University:

Each department head submits an annual report to the Dean of his College. This report includes all activities undertaken by each faculty member in the department with respect to teaching, research, publications and community services. This report is viewed as summative self-evaluation effort by the department.

Summative and formative evaluation of courses, programs is also carried out occasionally by the department council during its meetings. Researchers also take part in the evaluation efforts to see to what extent certain specific objectives have been achieved (summative evaluation), or to see whether certain objectives or programs are achievable in the ordinary setting and by the available means and instruments (formulative evalution). However all these evaluative efforts are done rarely and if they are done they cover only specific and limited number of objectives.

The Dean of each college and the Director of each centre submits a report at the end of each year to the president of the University showing the performance of the college or centre. This report is a compilation of individual reports submitted by the departments or units in that college or centre. The author previously a director of a department (for two years) and a director of a centre (for 5 years) views these reports as self-summative evaluation efforts of the college or centre.

Other administrative departments or deanships in the University do submit annual reports to the president. In addition to academic activities included in these reports, administrative and financial matters are also viewed and evaluated.

These reports are compiled and coordinated by the department of planning and an annual report is presented to the University Board and discussed there. This report which includes academic matters, scientific research, community services and other activities carried out in the University is submitted by the president to the Board of H.E. This report is considered as a summative evaluation of the activities undertaken by the University each year.

It is worth mentioning that the major objectives of the University spelled out in the Law of Yarmouk University have not been evaluated systematically and objectively. The different programs in different colleges or centres were not subjected to critical review and evaluation. The evaluation of these programs and objectives is the responsibility of the Board of Higher Education, and external evaluators must do the job.

Amman Community College:

Amman community college is a public/government higher education institute. It is the oldest higher education institute in Jordan established in 1951 as a teachers' college. Community colleges as higher education institutes were under the supervision of the Ministry of Education until 1982 when the Board of Higher Education was established to hold responsibility for planning and coordinating higher education in Jordan. As noted above, in 1985, the Ministry of Higher Education took over all responsibilities and supervision of community colleges.

Amman community college plays a limited role for the time being. It accommodates 507 students continuing their higher education in one program, "the academic program." Six different specializations are identified in the programe, these are: Islamic studies, Arabic language, English language, Social studies, science and mathematics.

The college has a Dean, appointed by the Ministry of Higher Education, with a PhD degree in Education. There are 22 instructors in the college.

Below is the organization chart of the college:

College council

The Dean

Assistant Dean Administration and Finance

School Administration

Physician

Assistant Dean Academic and Student Affairs

Accounting Section

Supplying Section

Services Section

Boarding Section

Teaching Sections

AV Section

Library

Admission and Registration Section

Counsellor

Educational

The Dean of the college is responsible for the management of the academic, administrative, and financial affairs of the college as well as development of the college according to the regulations. Job descriptions for each assistant Dean and section Head are specified by the Ministry of Higher Education to make sure that everyday and routine activities are done properly in the college.

The author visited Amman Community College, and interviewed the Dean of the College and came to the conclusion that evaluation in public colleges takes the following forms:

(1) Pre-evaluation for accreditation of the college done by a committee appointed by the Ministry of H.E. Existing programs and new ones also had to be accredited.

(2) Evaluation of programs or courses is occasionally carried out by graduate students as a part of the requirements, for the award of a degree.

(3) A comprehensive examination is held at the end of the study which is administered by the Ministry of H.E. It is viewed as an evaluative criteria for the effectiveness of the college.

No other evaluation procedures or activities are conducted or required.

The National Community College:

The National college is a private higher education institute. It was founded in 1980 in the suburbs of Amman to provide post secondary education and technical training needed in Jordan and outside. There are four different programs - each

continues for two years of post secondary education. In the college the programs are:

- The academic program which includes, Islamic studies, Arabic language, English language
- Administrative and Financial program, which includes accounting, business administration, finance and banking administration, offices administration.
- Engineering Program: This includes - electrical, mechanical, cooling and heating and architect services.
- Medical services program including medical laboratories and pharmacology.

The National community college accommodates about 1,100 students educated and is staffed by 39 full time instructors.

The Ministry of Higher Education assumes the responsibility for academic and technical supervision of private community colleges. Each college should have an accreditation from the Ministry of Higher Education. However, financially and administratively each college is attached to a Board of trustees as the following chart shows.

Board of Trustees

Administration office	Dean	College Council
Assistant Dean Financial and Administrative affairs		Assistant Dean Academic and Student affairs
Accounting		Academic Departments
Supply Department		Student affairs
Clinic		AV Department and Library
Services		Continued education and training
Employees		Guidance and counselling

The Dean is responsible for the management of the academic, administrative and financial affairs assisted by two assistant Deans. Job descriptions and responsibilities are specified by the Ministry of Higher Education.

The Ministry of Higher Education takes over all responsibilities and supervision of community colleges both public and private. The role of the Ministry for the time being is restricted to accreditation, enrolments as well as administering the

comprehensive examination. Statistics about different aspects are sent to the Ministry of H.E. upon request.

In a visit to the National college, the author could not trace any evaluation activities undertaken by the college other than those mentioned earlier in Amman community college.

The Dean of the college submits yearly reports to the board of trustees including statistics, performance of the college and suggestions for future development. This report is considered as self evaluation effort both academically and financially.

Overview on Evaluation:

Evaluation means different things to different people. To some, it means describing the present situation. The annual reports submitted by department Heads, Deans of faculties in Universities or colleges and by Presidents of Universities illustrates this view. To some other people, evaluation means judging the effectiveness of an educational activity or program undertaken by an institution. In most cases the criteria used by these institutions are narrow, subjective and/or political in nature.

While evaluation is considered a desirable activity, it should be looked at as a rigorous educational research.

Evaluation can serve different purposes: 71

(1) Communicating with the public

(2) Providing information to decision makers

(3) Improving existing programs and activities

(4) Monitoring the progress of an institution towards achieving the goals.

To achieve the purposes of evaluation, the evaluation process should have the three major phases: planning, conducting and using. The evaluator in the first place should start with determining evaluation purposes and objectives which will lead to developing a evaluation plan. The main objectives of an activity or program to be evaluated have to be clearly stated and spelled out.

Two types of evaluation are deemed improtant and necessary: Formative evaluation which takes place during the development of a program or an activity, and summative evaluation which takes place at the end of a program to measure the attainment of objectives specified and to direct future action.

The author identified earlier the major activities and procedures undertaken in the evaluation process at higher education institutions. These include:

(1) Annual reports prepared by department Heads in different faculties, or by Deans of schools or colleges.
The president of the University also submits a report to the Board of Higher Education. These reports describe in some detail the performance of the institution. They are viewed as summative self-evaluation efforts by the institution. These reports are circulated officially and on a limited basis. It is doubtful if any purpose of evaluation is fulfilled by these reports.

(2) Existing courses and programs or proposed ones are subject to critical review and discussion at the department level and above. While this cannot be considered as systematic formal evaluation of of courses and programs, yet it can serve the third purpose of evaluation mentioned above. External evaluators are needed to monitor the progress of an institution and improve the existing programs and practices. Faculty members and graduate students occasionally undertake this task for personal academic reasons or degree requirement.

(3). The comprehensive examination held at the end of the study for community colleges' students is viewed as a summative evaluation activity of a program at a certain community college. This comprehensive examination plays a significant role in improving and developing practices and activities in community colleges.

(4) Accreditation requirements set up by the Ministry of Higher Education serve as a pre- or formative evaluation procedure of a specific program at a community college. The accreditation requirements have been recently applied. It will take five or six years for many community colleges to fulfil the requirments of accreditation.

(5) Evaluation of cost-effectiveness at the University level and public community colleges is absent. However, all accounts of Universities and public community colleges are audited.
Private community colleges do have cost evaluation. The criteria of cost effectiveness is most probably the profits gained every year.

The major objectives of Higher education as determined by the Ministry of Higher Education were not reviewed or evaluated. The same applies to any higher education institution in Jordan. It is the responsibility of the Ministry of H.E. and the Board of H.E. to review and evaluate the achievement of these goals and objectives as well as the responsibility of each institution to do the same concerning its objectives.

Recently, the Ministry of H.E. made contacts with researchers from Universities to conduct evaluative studies about specific activities or programs within the system of higher education.

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CHAPTER 4

A STUDY OF THE EVALUATION PROCEDURES USED TO MEASURE THE EFFICIENCY OF HIGHER EDUCATION SYSTEMS AND INSTITUTIONS: A CASE STUDY OF NIGERIA

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SECTION 1

Introduction

Higher institutions in Nigeria can be categorized into two main groups:

(1) Federal Institutions

(2) State Institutions.

In these groups, there are tertiary institutions such as:

(a) Universities

(b) (i) Colleges of Education

(ii) Polytechnics.

In this presentation, the Federal and State Universities are monitored in the same manner. There is no 'private' university in Nigeria.

A. What is done to assess the efficiency of higher education as a whole?

(1) What bodies decide the questions which are to be asked? The Federal/State Government of Nigeria through the Visitor - Head of State, in the case of federal institutions and the State Governor in case of state institutions.

(2) What questions are asked?

Terms of reference are questions asked and they are usually as follows:

"(a) To ascertain the extent to which the University has been effective in fulfilling the objectives for which it was established and in particular to:

(i) consider the growth of the institution and determine the adequacy or otherwise of the resources at its disposal and their due utilisation

(ii) assess the extent to which the institution has assisted in meeting the manpower requirement of the Western state and the country as a whole, and

(iii) advise on the future development of the institution in the next decade

(b) make such recommendations as are deemed necessary by the Visitation Panel."

"(c) Determine the relationship between the University and the various statutory bodies it interacts with according to its law for purposes of supervision, planning, finance, discipline, guidance, and any other relationship the University may have in dealing with the said bodies including the University Governing Council, the National Universities Commission and the Federal Ministry of Education as well as the Visitor.

(d) Examine the 'Law' establising the University including the relationship between the various internal organs, units and officers and study in what ways the law, in all its ramifications, has been observed by the competent authorities and also suggest any modifica-

tions to the law considered necessary or desirable to enable the University to achieve its objectives better.

(e) Study the general atmosphere of the University over the period in question and in particular, comment on the general disciplinary tone of the University, and the collective conduct and deportment of all the Personnel of the University especially the students, the staff and the managers and advise as to whether proper academic traditions and standards obtain and how any necessary or desirable corrections may be made including the relationship between the University, on the one hand, and the host community and the wider society, on the other, over the period in question.

(f) Examine, as far as possible, all the academic programmes, policies and practices, as well as the total academic and physical development, performance and direction of the University and advise as to whether the appropriate targets have been met and how modificiations may be made to achieve maximum academic productivity, scholarship, excellence and purposefulness as well as greater service to the nation.

(g) Study in detail the management structure and performance of the University including fiscal and administrative, personnel and welfare policies, and advise on ways to cut costs, reduce waste, obtain the greatest value for unit resource input, and on how to continue to develop, if necessary by adaptation rather than expansion, in the face of attenuated resources, including the whole question of contracts, regularity of audited accounts, and investments into consultancy services as revenue generating ventures.

(h) Trace the historical evolution of the University and take stock of its life style and sense of direction and advise on what fundamental or expedient corrections are needed to enable the University to better achieve the objectives set for it.

(i) Advise on any and all other aspects of the University activities that may be considered to be of interest to both the Visitor and to the public as well as to the purposes for which the University was founded."

- Page 3 of Views of the President of the Federal Republic of Nigeria on the Visitation Panel Report into the Affairs of a Nigerian University (1989).

(3) What evidence is gathered to address the questions in (2)?
Evidences: files documents, minutes of meetings, concrete evidence (equipment), bank accounts, auditor's reports, etc.

(4) How is the information gathered?
By - oral interview
- memoranda from the public, staff, students, departments and general community.

(5) What structures are used to gather the data? (Which office or unit?)
Directly to the Visitation Panel.
Usually, a secretariat is established for the panel and individuals or groups of persons, departments, etc., submit memoranda at the secretariat. The Panel can invite anybody to come and give evidence.

(6) At what stage and by whom is the data interpreted?

The data is interpreted immediately after the various evidences have been collected and the interpretation is done by the panel.

(7) To whom is the information supplied?

The information so collected is given to the government, precisely the Head of State.

(8) Is the exercise costed?

Yes, the exercise is costed and it is usually borne by the Institution being evaluated/visited.

B. What bodies are responsible for the evaluation of the system of higher education?

(1) Is it the Ministry or section of a Ministry?

The external evaluation is the responsibility of the Federal Government, through the Visitor (Head of State) who sets up a commission called Visitation Panel.

(2) A religious organisation?

No. Not a religious organisation.

(3) If religious body - What is its status?
- What are its responsibilities?
- What is the staffing position?

(4) If evaluation is delegated to a commission or foundation what is its

(a) Membership?

(b) Responsibilities?

(c) Staffing?

Membership is made up of:

(i) Chairman - usually a judicial person

(ii) Other members

- university person, who is familiar with the university academic programmes representing the interest of universities generally
- Ministry official, who is conversant with administrative procedures representing the interest of the Ministry of Education
- military/civilian, who is very close to the Government of the day, representing the interest of the Federal Government
- member, who is a legal expert, representing the public
- member, who is an accounting expert.

(iii) Secretary (a civil servant from the Ministry of Education or National University Commission)

(iv) There is usually a secretarial supporting staff from the Federal Ministry of Education.

C. What official statements are there of the function to be evaluated.

(1) What laws, official publications or memoranda of Ministries or Minutes of Committees?

The Visitor (Head of State) usually sets up an instrument (decree, law, or policy statement) to establish the Visitation Panel.

(2) Are the various functions of the system brought together as a coherent whole or described separately?

The various functions of the panel are usually brought together in form of a report containing findings, observations and recommendations.

D. What specification is there of the particular information to be collected in official documents or in letters of instruction to institutions?

The panel is usually given the greatest power to call for files and documents that may be of help in performing the functions in respect of:

- finance
- administration/service
- research
- teaching
- personnel
- etc.

E. What procedures are used to gather information?

Procedures used to gather information include:

(a) a call for memoranda from the public

The public and the University community are usually asked to submit memoranda to the panel.

(b) Checking the files and documents in the various units of the institution

(c) Oral interview. Respondents may come from anywhere. Usually, the respondents are called to give evidence in respect of possible allegations, or queries raised in memoranda

(d) Visit to the scenes of action within the university. For example, the panel may like to see physically any building or equipment purportedly acquired with the public fund, and determine the efficacy or need for such an equipment.

F. What categories of persons is the information obtained from?

Information is usually obtained from the least junior member of staff to the highest (the Vice-Chancellor) member in the University.

G. What organisation or organisations actually gather the data?

The visitation panel gathers the data from the University. As previously mentioned the panel is made up of different interest groups. The panel is responsible to the Visitor - the Head of State.

H. In what form is the information reported?

(a) The information is normally reported in a book called Visitation Panel Report. The report normally contains the evidences gathered. The raw data is always presented in form of figures, comments, observations, and conclusions. Each unit of the University, such as faculties and administrative units, is presented and reports of each are usually included in the report.

(b) There is usually what is called Confidential Reports. This confidential report is not meant for public consumption. The report is usually given to the Visitor.

(c) In case the members of the panel do not agree on certain observations or comments of the panel, a minority report is usually allowed. However, such minority reports are not always used.

I. Interpretation.

(1) At what stage is interpretation made?

(2) Who does the interpretation?

Those who gather the data?

By others in the unit responsible?

By those to whom it is supplied?

There are different stages of interpretation.

- interpretation by the panel.

This is done immediately after gathering information. The interpretation of the panel is always in the report to be given to the Visitor.

- interpretation by the Visitor.

The Visitor will study the report of the panel and interpret accordingly, using the findings, observations and recommendations of the panel.

- recommendations of the government are usually interpreted by the Governing Council and implemented by the Council.

J. Supply of information.

(1) Who is the information supplied to?

The general information is supplied to the whole public and the university in particular.

(2) For what purposes is it used?

- allocating resources?
- deciding priorities?

The information is used for the following purposes:

- allocating resources
- continuation/cancellation/moderation of programmes of study
- discipline and
- review of activities.

(3) Is the information made generally available?

The report is made generally available to the public. It is usually in two forms:

(a) 'blue paper'

The 'blue paper' is just a report of the panel and the recommendation of the panel

(b) 'white paper'

This is the paper containing the reaction of the government to the report. In this paper the government usually states categorically whether a recommendation is accepted, rejected or moderated for implementation. The university is bound to accept the recommendations in this paper and implement them to the letter.

(4) Is it published officially?

The report is published offically and it is called 'white paper.'

(5) Is it made available by limited circulation? If so, to whom? The confidential report is limited in circulation while the 'blue paper' and the 'white paper' are made available to all.

(6) Is it made available on request? If so, is access restricted?

Yes, the reports can be purchased from the Government Printer or the Government Library; public bookshops and university bookshops at a very moderate charge.

K.

(1) What if the cost of the evaluation exercise is available?

(2) If no cost is made public, is a precise or general costing made?

General costing is usually made. The panel may be at work for over 6 months at the expense of the University. Besides this, the government usually spends a lot of money studying the report and reproducing the white paper.

SECTION 2

How do the Institutions monitor themselves?

(1) What are the functions of the individual or body responsible for evaluating efficiency?

(2) What is the range of duties and responsibilities of

(a) Rector

(b) Vice-Chancellor

(c) Provost

(d) Other Head of Institution

in evaluating the efficiency of the Institution?

Efficiency is usually evaluated by different bodies at different levels.

The following areas are usually monitored internally and the bodies responsible for monitoring are hierarchically listed against them

(i) Academic Programme Evaluation

- Faculty is to determine to need for such a programme/ curriculum
- Committee of Deans to examine the viability and financial implication of the programme
- Senate to approve the programme for implementation
- National University Commission (NUC) to accredit the programme for national recognition and financial assistance.

(ii) Student Evaluation:

- Department concerned is to set questions to cover the content of the syllabus
- External examiner (from outside the University, who is in the area of discipline) to moderate the questions and assess the scripts after the internal examiner had graded the papers
- Faculty is to approve the recommendations of the external examiners and send such results to the Committee of Deans.
- Committee of Deans is to examine thoroughly the results and recommend for Senate approval
- Senate is the highest academic body to award the diploma/ certificate/degree as the case may be.

(iii) Financial Evaluation

- Finance and General Purposes Committee is to examine different programmes and recommend to Council for funding such programmes
- The Council of the University is to approve for implementation
- The Internal Audit of the Bursary Department is to monitor the spending according to the approved budget.

(iv) Personnel Evaluation

- The Department is to recommend the Faculty approval.
- The faculty, in the case of ranks below Senior Lecturer, approves the recommendations and sends the minutes to the University Academic Establishment unit for ratification.

For a Senior Lecturer, the Faculty has to defend the case in the meeting of the University Appointment and Promotion Committee (A & P). If the case is to be made for Readers and Professors, the Faculty sets up an internal assessment with the cognate Deans in the meeting. If the internal assessment is positive, the recommendation is sent to the University Appointment and Promotion Committee.

- The University Appointment and Promotion (A & P) Committee, is to approve or reject the recommendation of the faculty. All cases coming before the A & P should pass through the faculty. Cases of promotion to Senior Lectureship terminates at the A & P while cases of Readers and Professors are assessed externally.
- The Council is to ratify cases of promotion in respect of Readers and Professors.

Role of Vice-Chancellor

The Vice-Chancellor is in charge of day-to-day activities of the university. He is the Chairman of Senate, A & P Development Committee and a member of the Council. He is to present cases before council and Senate for approval. There is no rigid or definite evaluation exercise to monitor the University. Most of the things listed here are the daily routines which are a built-in procedure for monitoring and assessment purposes.

C. Data Gathering

(1) What is the status of those who actually gather the data?

(2) What are the responsibilites of those who actually gather the data?

(i) Personnel assessment

The head of department gathers the data and presents to the faculty which in return gives the data to the university.

(ii) Student Evaluation

This is also done by the lecturers with the head of department in close contact. In this case, there are usually external examiners who visit from other universities.

D. Objective of Evaluation

(1) What are the objectives of the evaluation?

(i) The exercise aims at determining the effectiveness of the personnel and consequently recommend promotion or otherwise

(ii) To maintain standard of curriculum of instruction.

(2) What is the range of issues addressed?

The evaluation addresses issues such as publication, teaching effectiveness, service to the general community, administrative skill and personality.

E. Information

(1) What specific information is gathered?

Number and quality of publications; quality of teaching and number of courses taught, specific assignments, and number of years in position.

(2) What range of procedures are used?

Interviews, files and documents, the curriculum vitae and observation technique are usually adopted for gathering information.

(3) From what categories of persons is the information gathered?

- administrators
- academic staff
- research staff
- general support staff (eg. librarian, computer service staff)

Head of department usually gathers the information in respect of an individual from the person to be assessed. The person is to present all documents that are relevant to his job.

(4) What is the structure used to gather data, which office or unit of the institution is involved?

Data goes from department to faculty through University to Council of the University.

F. Data Reporting

(1) In what form is the data reported?

The data is usually reported highlighting individuals' contribution to the department, research effort, and teaching or administrative effectiveness.

(2) At what stage is an interpretation made and who makes it?

At the departmental level by the Head of Department.

(3) Who is the data supplied to?

The data is supplied to the faculty and the faculty sends recommendation to the University.

(4) What use is made of the data?

To determine the retention of job, promotion of the person, or warning as the case may be.

(5) Who else is the information available to?

The information goes to the University Council.

(6) Cost

Monitoring or evaluation is not usually costed as such but necessary stationery is supplied for paper work.

INSTITUTIONS: 1. The Polytechnic
2. Colleges of Education

THE INFLUENCE OF THE JOINT CONSULTATIVE COMMITTEE ON EDUCATION (JCC) AND THE NATIONAL BOARD FOR TECHNICAL EDUCATION (NBTE) ON POLYTECHNICS AND COLLEGES OF EDUCATION

The JCC and the NBTE have a lot of monitoring influence on standard of education of Colleges of Education and Polytechnics respectively.

In fact, before any programme of study is implemented in any College of Education such programmes should go to the JCC through the University of affiliation, approved by JCC for recommendation to the National Council on Education (NCE), the highest educational policy making body in the country.

In the same manner, all technical education programmes should pass through the NBTE through the JCC to the NCE for approval before implementation in the Polytechics. However, the implementation strategy, the effectiveness and the standardization procedure is left to the Universities to which the polytechnics or colleges of education are affiliated. The sense behind this situation is that the Universities are the immediate institutions which the colleges and the polytechnics feed for higher certificates. At the same time a lot of the products of the polytechnics and colleges of education find themselves in the work field and their outputs are assessed by the consumers for promotion purposes.

Below, we have the monitoring and evaluation procedures for the Colleges and Polytechnics in the country.

A.

(1) Each College of Education or Polytechnic in Nigeria is affiliated to one University or another. The Universities are to select persons of senior status to serve on the governing councils of the colleges. It is this body, (the Governing Council) made up of principal officers of the College, officials of the Ministry of Education, and selected persons from the University, that takes decisions on the questions of the efficiency of the institutions.

(2) The questions asked borders on the field of academic performance of both staff and students, administrative and financial accountability.

(3) Evidences include files, documents, minutes of meetings, students records, curriculum vitae, bank accounts, auditors' reports, etc.

(4) Information is gathered through memoranda given by members of the College community, and general public who have interest in the day-to-day running of the college or polytechnic activities. Information is also gathered from the matters arising from minutes of statutory meetings.

(5) Unlike universities, Ad-hoc committees are set up to do certain specific jobs or find solutions to some problematic situations. Such an Ad-hoc Committee is responsible either to the Governing Council or the Provost/ Rector of the institution.

(6) The Ad-hoc Committee, or the Governing Council, or the Provost/Rector interprets the data after all interrogations and investigations are completed.

(7) The information is passed on to the Governing Council which intimates the government, if need be.

(8) Persons serving in the Governing Councils or Ad-hoc Committees are given some stipends.

B.

(1) The Ministries of Education are responsible for evaluation of the system of Colleges of Education and Polytechnics.

(2) No higher institution is yet owned by a religious organisaton; Government has taken over the funding and administration of such institutions that had hitherto existed.

(3) In special cases a Commission may be nominated by State or Federal Government to look into activities of Colleges where disturbances or maladministration abounds.

(a) Membership is made of

- a chairman, usually a retired or serving judge
- a secretary, usually a civil servant
- other members who have expertise in various facets of the college life.

(b) Their responsibilities are dictated by the terms of reference which warranted is being set up. This is usually done by an instrument such as a decree, law, an edict, or a policy statement.

(c) Supportive staff made up of confidential secretaries, typists, clerical officers, etc, are also made available to the commission or ad-hoc committee in order to ease their job.

C.

(1) Policy statement accruing from the laws, edicts, memoranda, and minutes are useful official statements of the functions being evaluated.

(2) Various functions of the system are brought together to form a comprehensive report of their findings.

D. The Committee or panel is given the power to call upon anyone who has evidence to bring it out. Such evidences which are usually documents or oral interview aid the committe to look into the (a) finance, (b) administration, (c) services, (d) research activities, (e) teaching and learning effectiveness, and (f) personnel management strategies of the institutions.

GENERAL OBSERVATIONS ABOUT POLYTECHNICS AND COLLEGES OF EDUCATION
MONITORING

There is no definite monitoring panel like that of the Universities. There are usually what one can describe as 'fire fighting' bodies. Such bodies are usually set up by the government (State or Federal) to investigate problems related to students' unrest, allegations of maladministration, and internal problems as they arise.

There is no 'private' polytechnic or college of education as such which do not have the blessing of the State or Federal Government.

Academic Standard

The University to which the college or polytechnic is affiliated is generally responsible for maintaining academic standard in the college. Examination matters are usually presented to the senate of the 'mother' University through appropriate faculty before certificates or diplomas are issued to the deserving candidates.

CHAPTER 5

A STUDY OF THE EVALUATION PROCEDURES USED TO MEASURE THE EFFICIENCY OF HIGHER EDUCATION SYSTEMS AND INSTITUTIONS IN MALAYSIA

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Introduction

This report contains a preliminary account of the various evaluation procedures, mechanisms and instrument that are currently in use to evaluate the university system in Malaysia. Although the author is conscious of the requirement to address issues to measure the effectiveness, the efficiency and the cost effectiveness of the university system, the account touches on evaluative measures in general. For institutional evaluation is still an area that is not widely explored and to date attempts to specifically measure the above three aspects are not widespread.

Higher Education is defined in Malaysia to encompass such professional and academic institutions as universities, colleges, technological and technical institutes and teacher training colleges (Report of the Higher Education Committee, 1967). For this report, the definition of higher education is restricted to just the university system which is represented by the University Kebangsaan Malaysia (the National University of Malaysia). Constraints of time does not permit us to cover the other universities or institutions. However, as almost all of the higher education institutions are national institutions, centrally controlled by the Minister of Education, there is a high degree of standardization and a common pattern of management with similar target requirements amongst them.

This report will cover the three sections suggested in the outline viz: Section 1, Evaluation process as a whole in relation to the opeation of the system: Section 2, the application of evaluation and Section 3, the review of the evaluation in terms of their functioning, quality, results and impact. The coverage however, will concentrate more on Section 1 and 2.

Method of Research

This is a descriptive and perceptive study. Data is collected from one University, that is the Universiti Kebangsaan Malaysia to represent the university system. It is regarded sufficient to do so since all Malaysian universities are fully funded by the government and their governance and academic structures as well as their fundamental policies as imposed by the Ministry of Education, are similar.

Semi-structured interviews were carried out to elicit the necessary informations. Interviews were conducted individually on a one to one basis, which generally lasted for more than 2 hours. (Questions were posed on the general roles and objectives of the universities in Malaysia, their present growth and development and their future direction. This was followed with questions directly related to the main study, that is pertaining to the objectives, criteria and procedures used in evaluation). The questions asked include:

- What do you think of evaluation of the higher education system today?
- How do higher education institutions monitor themselves?
- Is evaluation necessary? Why?

- How do you define it?
- What are some evaluative procedures that you know of?
- What is done to assess the efficiency of higher education as a whole?
- What is the procedure used for costing?
- What bodies decide the questions?
- What are the questions asked?
- How is the information gathered?
- Are there official statements pertaining to this?

Respondents were specially selected to represent key personnel - both academics and administrators. They were selected because they are experienced and are holding positions of power and persuasion and are directly involved in policy making and implementation. All together 14 respondents were interviewed (see Appendix 2).

Section 1

Evaluation of the University System in General

(1) Formal Evaluation

All in all, if we consider formal evaluation of the university system as a scientific, quantitative evaluation done by outside experts to appraise the quality of what goes on then, going by the evidence of the literature reviewed and by the opinion expressed in the interviews, it is safe to comment that this activity is very limited. While academics and administrators feel evaluation should be carried out by the universities, there are many factors cited as obstacles. Among them are:

- not liked, institutions reluctant to expose themselves to outsiders
- Ministry of Education not too keen to burden themselves with this task
- Requires a consultant; expensive and academics are doubtful about income. Also reluctant that Malaysian Civil Service Officers should step in and conduct the exercise. Doubtful of their competence and knowledge of the university system
- Cumbersome to have an overall evaluation.

Evaluation is deemed necessary at least for every 5 years for the following reasons:

- To see whether goals have been achieved
- To see institutions overall performance and to assess the effectiveness and changes that have taken place
- To provide future directions.

Despite the above situation, a lot of less self-conscious exercises on evaluation arecarried out at the Ministry of Education level, at the institutional or University level and at the Faculty and departmental level. These come in the form of:

- Summative reviews etc, at the end of a national development programmes such as the Fifth Malaysia Plan, or its mid-term review, or that of the university's 10-year development plan;
- agenda in regular meetings
- reports tabled at Cabinet meetings or at Parliamentary debates;

- Programmes or Courses review either at the Ministry of Education or at the institutional level;
- external examiners' reports
- follow up or as reactions to press comments or public views.

(2) The Ministry of Education and Its Special Link with the University

In Malaysia, all universities except the International Islamic University are Malaysian or Government owned. The process of developing the university system is subject to the Educational Act and Universities and University College Act of 1971 and 1975. Thus the universities are expected to follow a similar pattern of governance and to adhere themselves to similar rules and regulations. A special division has been set up at the Ministry of Education to coordinate the affairs of the universities. The Higher Education Division was set up in 1978. Its functions are specially geared towards the management of higher education in Malaysia. The following are its current functions:

- to administer and coordinate the universities functions under the Minister of Education and the Ministry of Education;
- to coordinate admission of new students into all undergraduates programmes in the higher education institutions;
- to gather data on higher education;
- to plan for the future growth of higher education in relation to the country's needs and its external development.

In terms of evaluation, perhaps the unit which deals with the planning and evaluation of the higher education system is the most actively involved.

On paper, the unit's activities are:

- to study the future growth of higher education institutions in the country;
- to study the physical needs in relation to the established policies;
- to study and evaluate existing and future academic programmes or courses and to make recommendations to the sub-committee on Higher Education as well as to the Educational Planning Committee (EPC) of the Ministry of Education;
- to study the effectiveness of the organisational structure and the smooth running of the higher education division;
- to study the setting up and growth of private colleges;
- to coordinate the establishment of linkages between Malaysia and other countries.

However, due to a shortage of staff and expertise and as personnel are not trained in higher education, beside the fact that this is a new set up, the units functions more as a collector and disseminator of information or as a clearing house, and as a coordinating body.

Some evaluation exercise worthy of note undertaken through this Division is the overall review of the university growth and the developmental needs under the Six Malaysia Plan (1991-1995). The main features of this review is the requirements that all universities should examine their goals and objectives in

the light of the Fifth Malaysia Plan (1986-1990) and say how they proposed to achieve those goals.

The above exercise is conducted at the beginning, middle and the end of the development period. For this, universities are required to conduct intensive review of their:

- philosophy, goals and objectives
- the present academic programmes
- students' enrolment
- staff growth
- physical and other facilities
- budget requirements
- other relevant aspects.

On the basis of the input from the universities plus those generated in the discussion at the various levels, the Ministry is able to forward statements on the present status and the future prospect of the university system in the country particularly in relation to such requirements as to meeting manpower needs: social needs particularly national unity, and the country's cultural needs.

Apart from the above, the unit also undertakes an evaluation of certain issues in the universities following the requests of individuals such as the Minister of Education, the requests from other divisions of the Ministry of Education or as a result of media or public comments. Thus, there are reviews pertaining to academic and personnel matters, such as on how to improve further the performance of university academics, the growth and the future of private colleges, as well as on legal and administrative aspects of the universities.

In dealing with educational matters, the Minister communicates either directly through: the lines of bureaucracy, that is through the Secretary General of the Ministry of Education or at the various meetings which he chairs or through the Special Advisor to Higher Education.

(3) The Vice Chancellors' Conference

The Higher Education Division is the secretariat to the Vice Chancellors' Conference held usually every 4 months. During the meeting, many issues pertaining to university effectiveness and efficiency are raised. The issues are those brought up by the Vice Chancellors themselves, by academics, by the Ministry of Education, or by politicians and Cabinet ministers. Some examples of issues raised are:

- students' tuition fees
- graduate programmes in certain disciplines eg. medicine;
- teaching of values and Islamic morals in higher institutions.

The Vice Chancellors' conference therefore studies these issues and discusses their policy implications. It also acts as a sounding board to the Minister of Education. Indirectly, it requires the Vice Chancellors to keep abreast with every development in higher education and constantly to evaluate the efficiency and effectiveness of his institution.

(4) The Education Planning Committee

Apart from the Higher Education Division, the universities are directly linked with the Minister and the Ministry of Education through the Planning Committee (EPC). This is the Committee which oversees and decides on all policy matters in education including those of higher education. In terms of function, this committee is the final body which endorses or otherwise, decisions made by the universities.

Section 2

Evaluation at the University level

(1) Degree Validation and New Programmes

As an educational institution, the University undertakes many forms of evaluation activities. Firstly, as a degree awarding body, it must ensure that it represents a recognizable standard of performance, only then can its degree be said to be credible. University Kebangsaan Malaysia has to go through a tedious and long process before its newly introduced programmes and courses gain approval from the authorities and recognition from the public.

There are specific processes and administrative procedures through which a proposal for new programme of studies has to pass. This requirement necessarily means that the University through the various department or committees, must undertake an evaluation of the existing situation. Specification structures for approval and review of programmes and courses are:

- the Education and Planning Committee at the Faculty level
- the Faculty monthly meetings
- the University Planning and Development Committee
- the Senate
- the Council and the Higher Education Planning Committee at the Higher Education Division.

The Higher Education Division will seek the comments from the other universities. Questions asked include:

- relevance and suitability to the country's needs
- the avoidance of duplication
- the availability of staff and its long-term prospects.

Objectives of these committee and Senate meetings are to answer questions such as:

- are the programmes/courses proposed necessary? Are they relevant to the University's goals and objectives?
- do they meet Malaysian development needs?
- what are the implications to the university's staff, facilities and budget?
- are the course structures, requirements, course outlines, teaching and assessment proposed feasible and in line with the Universities accepted procedures.

(2) Yearly Reports

To assess its overall performance and to see where it stands, the University compiles yearly reports which are presented to the Chancellor and the Court which represents the public. The aspects covered in these yearly reports include:

- an overview of the university's present development
- the activities undertaken by each Faculty, division, departments, centres or units for the year. Activities encompass teaching, research, publication, seminar and services
- problems faced and measures taken to overcome them.

These reports are actually self-evaluation efforts either by the academics or the administrators.

The University also requests that each Faculty submits a report called the long-term Planning Report annually for a 10 year period. For this, an overview of the present and the future growth of the university is required. In order to provide a comprehensive and realistic picture, Faculties will mobilise special committees or the Academic Planning Committee at the Faculty level under the chairmanship of the Deans to prepare the materials. These will subsequently be discussed at the Faculty meetings, at the Academic Planning Committee Meetings and by the Senate. Throughout, modifications and amendments will be made. In essence, compiling the yearly report is an exercise in evaluation and planning.

(3) Tracer Study of University Graduates

Like other higher education institutions, universities are dependent on their reputation and image with both the public and the consumers mainly the employers. Tracer studies which essentially use questionnaire - survey methods are conducted usually because of complaints or comments about the university's products. The studies aim to find out the effectiveness of the education and training provided by the university. Two such studies to be mentioned are: the tracer study on UKM graduates (1974-1980) conducted in 1977 by the Research and Consultancy Bureau and the Effectiveness of Diploma of Education teachers from the Faculty of Education, conducted in 1979.

The objective of the first study was to find out about UKM's graduate and how they are performing in the eyes of the employers. It also sought to find out the

graduates' views on the various programmes followed when they were at the university. Findings and recommendations were made available to the university's authority and the Ministry of Education.

Studies to evaluate the effectiveness of programmes offered at the UKM are also conducted on a joint basis under the auspices of such bodies as the ASEAN Development Project. In 1982, a research to evaluate the effectiveness of teacher training programmes in universities and colleges in Malaysia was conducted. It tried to compare the perceptions of students, university/college lectures and the headmasters who employ these teachers.

Main feature of these studies was to get a feedback on the effectiveness of the programmes at the university through the employers' and the consumers' viewpoints. Some form of scientific approach is used in the studies.

(4) Programme Evaluation

Programme evaluation perhaps is the most common form of evaluation conducted at the universities. This is partly because the programmes are linked directly to the institutional objectives and its goals and university administrators and lecturers constantly ask themselves questions such as where are we going? How effective are we?

Programme evaluation can take many forms including:

- as an on-going exercise
- as agenda of discussion at committee meetings
- as agenda at the Educational Planning Committee meetings

- as an exercise following students' or lecturers' evaluation of courses
- as a series of evaluation and planning activity at the Faculty level conducted by a specific committee
- such an evaluation report done by foreign consultants or
- as an evaluation done by external examiners.

4.1 Lecturer and Student Evaluation

More often than not this is done through the perceptive method. Lecturers from time to time ascertain the quality of their teaching or their peers' teaching through informal discussion with students or through the use of questionnaires at the end of their courses. Some lecturers also compare a sample of students work each year with those of the previous eyars. Most faculty members distribute evaluation questionnaires. The criteria used include an evaluation of their preparaiton, their teaching, the evaluation used and the general effectiveness of the courses. The objective of this is to determine the strengths and weaknesses of their teaching.

4.2 Evaluation and Planning Activity

Certain faculties such as the Physical and Applied Sciences and the Economic Faculty conduct a series of workshops or forums to review the curriculum and academic structures of the faculty so as to make them more relevant to the changing times. The workshops and forums facilitate an exchange of ideas among academics. Among others, the objectives of the workshop are:

- to discuss the departments' or Faculty's objectives and the type of graduates desired;
- to discuss the relationships of graduate training with economics, cultural and philosophical needs of the country. To produce a profile of graduate students specialising in the fields referred to;
- to produce a curriculum that can be regarded as a model for others.

The evaluation processes incudes data collection, paper presentation and brainstorming sessions. A report is written and brought to the faculty for further scrutiny and debate. It will then go through the normal channel of being presented to the various committees before the University's Senate and the Council approves of the changes.

Programme changes and modifications follow the approval of the Senate and Council.

4.3 Foreign Consultant

Evaluation conducted by foreign Consultants is common in the University. Foreigners, normally a specialist in certain areas, are invited and appointed ot the University to undertake specific tasks. There are many types of foreign consultants but generally they fall into these two categories:

- external examiners who are appointed to review programmes, examinations and the students answer scripts in such professional fields as medicine and engineering. Another type of external examiners are those appointed to examine the masters and PhD thesis

- visiting professors or scholars under the sponsorship of such bodies as the US Fulbright Scholarship Exchange, the British Council, the Inter University Council and others.

While some professors are assigned to specifically review and evaluate programme effectiveness and efficiency, such as the number of universities to meet the rapid expansion of student enrolment. Before 1969 and 1983, the number increased seven fold. Between 1969 and 1983, student enrolments increasted from 6,900 to 28,00 an increase of four times. This means the number of university students per thousand rose from 0.75 to 2.0. In terms of per student costs, university education grew from $3,800 in 1969 to $13,000, an increase of 3.4 times. In other words, it cost three and a half times more to educate a university student now.

5.2 Evaluation in terms of costs

The study sought whether there is any form of evaluation in terms of costs. It was stated that universities conduct their own review of their annual budget before submitting it to the Ministry of Education. There is no evaluation carried out to find out the cost effectiveness of the system. However, all accounts of the universities are audited. The auditors will examine the accounts and management of the accounts, with the aim, in the words of one of the interviewees 'to seek whether the university spending has achieved what it intended to achieve', in terms of student number, building, and acquisition of equipments.' The auditors will also review whether the funds allotted have been spent accordingly. The auditors, who are officers from outside the institutions, do carry out some inspection and in a way, report back on whether the cost made in acquiring

certain items are appropriate. They will subsequently submit their reports to the treasury and to Ministry of Education. It is a requirement that all accounts of the university should be audited annually. The same requirement applies to all universities in Malaysia.

5.3 Budget Subcommittees

Unviersity Kebangsaan Malaysia has two Budget sub-committees. One is called the Budget Committee which is chaired by the Vice-Chancellor. Members of the committee comprise of the

(i) Registrar
(ii) Deputy Vice-Chancellor
(iii) Bursar
(iv) Deans of the various faculties.

According to university procedures, each faculty has to draw up their annual expenditure for the coming year and submit it to the Budget Committee. The faculty will form its own sub-committee and, based on the current expenditure and coming intake of students and perhaps further development of the faculty it will prepare the yearly expenditure, before presenting it to the university. The Budget committee will then review each faculty is requirements together with the other recurrent expenditures. After studying the requests of each faculty the committee will make the appropriate recommendations to the Finance Committee.

According to the respondents, while there are no written criteria used to evaluate the granting of the budget, the committees normally based their recommendations on the number of students, relevancy of the request, on the

nature of the courses offered, and the staff requirements. The Dean of the faculty will be asked to justify each requirement.

It can be said the Finance Committee is an external body which will examine the university's budget before making its recommendations to the University Council. The Committee is chaired by a member of the University Council and members are drawn from various Government ministries, including a member from the Public Services Department, the Finance Department of The Finance Division of the Ministry of Education, the Vice-Chancellor and the Bursar of the University. This committee will review the recommendations of the Budget and will make the necessary recommendations to the Council.

The Council will study the proposals made and the recommendations provided in the annual budget before endorsing it to be submitted to the main Budget Committee of the Ministry of Education. Thus, within the university system, there are procedures for evaluating the costs of the university. The methods employed are based on experts' evaluation of the proposals made.

According to the Bursar who is responsible for preparing the budget, the unviersity keeps a record of the cost per student which is computed simply by adding up the university's total expenditures and dividing it by the number of students enrolled. However, the result of the 'cost per student', can be very distorted because in the final analysis the expenses depend on many factors such as on the academic levels of students, fields of study offered (some disciplines such as medicine, engineering and natural science are more expensive) and on research projects undertaken by the university.

To sum up, the cost per student concept is not a good measure of cost-effectiveness. Another factor which could distort the cost per students concept pertains to the fact that a high element of capital development expenditures are taken into account in the calculation. For example, University Kebangsaan Malaysia is still at the stage of completing its physical development which necessarily requires development expenditure.

Section 3

A Review of the Evaluation

The following is a summary and comments of the evaluation process and procedures of the University System in Malaysia.

(1) Evaluation is considered a desirable activity, however formal evaluation is not widespread. No institution has set up institutional research departments or bureaus to specifically appraise the effectiveness of the quality of the institution.

(2) Evaluation to ascertain cost-effectiveness is conspicuously absent. Generally, it can be said evaluation is conducted to meet administrative requirements more than other needs. Evaluation is to answer the question of "how are we doing?" However, lately attempts have been made to evaluate current curriculum, academic programmes and course and administrative structures to suit them with changing times, particular in anticipation of trends development for the 21st Century. In other words, evaluation is conducted to bring about changes desired.

(3) Evaluation is most actively carried at the Faculty at department level. Evaluation of programmes and courses are constantly conducted sometimes by the academic themselves, sometimes with the assistance of foreign personnel.

(4) External organisations namely the Ministry of Education sometimes provide the impetus for evaluation activities in the university. They also provide input regarding how things "should be" at the university. Focus is more towards adapting the university to meet national current development needs such as how to achieve excellence in higher education.

(5) Public comments and media stories have also led to evaluative studies being undertaken at the university. Tracer studies on students' effectiveness and programmes strengths and weaknesses have been conducted.

(6) The Malaysian Higher Education system is not wanting in evaluation procedures and mechanisms. There are well established steps or lines of action to follow. It also has a well-coordinated and formalised relationship with the Ministry of Education.

APPENDIX 1

Key Personnel Interviewed

(1) Dr Syed Muhammad Syed Abdul Kader
Director
Higher Education Division
Ministry of Education
Bandar Damansara
Kuala Lumpur

(2) Prof. Jailani Sukaimi
Head of Biology
PORIM, Bangi
(former Deputy Vice-Chancellor
Academic and Research, UKM, Bangi)

(3) Prof Sham Sani
Deputy Vice-Chancellor
(Academic and Research)
UKM, Bangi

(4) Mrs Lailatul Badariah
Deputy Secretary General
(Timbalan Ketua Setiausaha)
Planning and Evaluation Unit
Higher Education Division
Ministry of Education

(5) Encik Baharuddin Hj Alang Ishak
Registrar
Universitit Kebangsaan Malaysia
Bangi

(6) Associate Professor Dr Mohamded Hj Alias
Deputy Dean
Faculty of Economics
University Kebangsaan Malaysia
Bangi

(7) Prof Dr Christ J Buys
Visiting Fulbright Professor
to the Education Faculty
University Kebangsaan Malaysia
Bangi

(8) Prof Madya Dr Mohd Noor Hj Salleh
Deputy Vice-Chancellor (Staff Development)
Universitit Teknologi Malaysia
Sekudai, Johor Bahru

(9) Prof Abu Hasan Othman
Dean
Centre of Post Graduate Studies
Universiti Kebangsaan Malaysia
Bangi

(10) Prof Dato Dr Nik Abd Rashid Ismail
(former Deputy Vice-Chancellor
- Development and Training)
Universiti Kebangsaan Malaysia
Bangi

(11) Puan Kamariah Janor
Deputy Bursar
University Kebangsaan Malaysia
Bangi

(12) En Sayuti Sahlan
Deputy Senior Registrar
Universiti Kebangsaan Malysia
Bangi

(13) Mr Osman Ahmad
Assistant Registrar
(Senate Section)
Universiti Kebangsaan Malaysia
Bangi

(14) Mr Ahmad Nordin Jalil
Assistant Registrar
(Research)
Universiti Kebangsaan Malaysia
Bangi

(interviewed conducted end of April to early May 1989)

APPENDIX 2

Reports, Paper, Acts and other Government Papers Studied

(1) Universiti Kebangsaan Malaysia, Laporan Tahunan (Annual Reports) from 1983-84, upwards, Pejabat Perhubungan Awam, UKM, Bangi.

(2) Biro Penyelidikan dan Perundingan, UKM, Kajian Pengensan Siswazah, Universiti Kebangsaan Malaysia, 1974-1980, UKM, Bangi.

(3) Memo tentang Permohonan Mengadakan Program Baru, Ijazah Sarjanamude Kejuruteraan Kimia dan Diploma Kejuruteraan Kimia, Bahagian Pelajoran Tinggi, April 1983 (edaran sulit).

(4) Faculty of Education, Evaluation of Education Programs, Universiti Kebangsaan Malaysia, by C J Buys, May 15, (edaran terhad).

(5) Jabatan Fizik, Faulti Sains Fizis dan Gunaan, Laporan tentang Bengkel Penyemakan Kurikulum, June 1988 (edaran terhad).

(6) Jabatan pendidikan, Kecekapan Guru-guru Lepasan Universiti Kebangsaan Malaysia menurut kacamata Guru-guru Besar Mereka, UKM, Bangi, 1978.

(7) Jawatankuasa penaja, UKM, Laporan Universiti Kebangsaan, DPT, 1969.

(8) Jabatan Pendidikan, Link Scheme - a Report on the Fifth Visit to UKM by Dr M G Mason, North E Wales Institute, 1979.

(9) Jabatan Pendidikan, A Teaching Resources Area and Library to Support the Practical Teaching by Education Students, a Report by Dr J O Clarke, Head of Resources, North Wales Institute, 1975.

(10) Senada, Suara UKM, Bil. 074, Nov/Disember, 1988. Rencana Pengajarang "Kualitit Siswazah Tempatan."

(11) Government of Malaysia, Report of the Constitution of the National University, Appointed by the Honourable the Minister of Education, Malaysia, K. Lumpur, 1971.

(12) Undang-undang Malaysia Akta A 295 Universiti dan Kolej University (Pindaan) 1975.

(13) Undang-undang Malaysia Akta A 293 Universities and University Colleges Act, 1971.

(14) Teks persidangan Akhbar, Naib Canselor pada 24 Feb. 1982 UKM yang mengumumkan:

1. Penysunan Semula Fakulti Sains

2. Peningkatan Jabatan Pendidikan Kepada Taraf Pusat Pendidikan

3. Kelulusan Program Diploma Pengajian Strategi dan Keselamatan.

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(3) Richard I Miller, The Assessment of College Performance, San Francisco, 1979.

(4) Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools, A Guide to Self-Study for Commission Evaluation, Chicago, 1986.

(5) Rod McDonald and Ernest Roe, Reviewing Departments, HERDSA, National Library of Australia 1984. (The Green Guide No 1.)

(6) Sharom Ahmat, Nation Building and the University in Developing Countries: The Case of Malaysia, Higher Education 9 (1980), Elsevier Scientific Publishing Company, Amsterdam.

(7) A Manual for the Evaluation Visit, Commission on Institutions of Higher Education 1986088.

(8) Ozay Mehmet and Yip Yat Hoong, Human Capital Formation in Malaysian Universities, Occasional Papers and Reports, Universiti Malaya.

(9) Warta Kerajaan, Jil, 18, No. 7, 1974.

CHAPTER SIX

EVALUATION PROCEDURES USED TO MEASURE THE EFFICIENCY OF HIGHER EDUCATION SYSTEMS AND INSTITUTIONS: THE NETHERLANDS

W.B. Dockrell, University of Newcastle upon Tyne

A HIGHER EDUCATION IN THE NETHERLANDS

There are two distinct and until recently quite separate sectors of higher education in the Netherlands, the universities and the HBO (hoger bereopsonderwijs). These two sectors are so different in their history, their present status and in their pattern of accountability that they will be treated separately.

1. The Universities

All 13 universities are part of a single system. All, even the three "Free", that is Church founded institutions, are state funded, subject to the same statutes and regulations and accountable in the same way to the Ministry of Education and Science.

Approximately 90% of the income of the universities comes from the central government either directly in the form of a lump sum grant or indirectly in the form of grants for specific activities. The lump sum consists of a number of elements, for teaching responsibilities as derived from a "places-funds" model, for research and for administrative duties. The remainder of the income derives from teaching and research contracts and revenue from patents.

Traditionally central control has been exercised directly. Many aspects of universities which in some other countries would be the responsibility of the individual universities or of bodies representative of them have been prescribed by law in The Netherlands. The law itself is supplemented by national regulations in the form of the University Statute, an Implementation Decree and regulations governing the budget and investments. In addition, the top tier of government in each university, the executive board, is appointed by the Ministry of Education and Science. This traditional system of detailed control is in process of radical revision.

2. HBO

Higher vocational or professional education was until recently provided by a multiplicity of small privately founded and managed colleges, approximately 300 of them. They were governed by the Secondary Education Act and thus under detailed control from the ministry.

Since 1986 they have been regulated under the provision of their own Higher Vocational Education Act, "The degree of detail in legislation on HBO is comparable to that in University legislation. Only in the case of internal administrative organisation are the regulations for HBO less detailed than those for the universities. As in the case of universities, any increase in the number of diploma courses is subject to government approval." (Min of Ed and Sci, 1988, p18) Though more than 90% of them are nominally private, and this is reflected in their management structures, nonetheless they are required to

conform to legislative and administrative requirements if they are to receive the government funding which accounts in most cases for virtually all of their income.

B. ASSESSING THE EFFICIENCY OF THE SYSTEM

Efficiency is usually based on an assessment of effectiveness, the extent to which a system achieves its objectives, and economy, that is cost. Efficiency assess the benefits relative to the cost.

1. The Universities

Effectiveness in higher education in The Netherlands was traditionally a matter of conforming to detailed regulation and meeting the national requirements as specified by parliament. The ministry prescribed in considerable detail exactly what was to be accomplished and the universities carried it out.

The law covered virtually every aspect of university life. "There are exhaustive regulations governing the procedures to be followed prior to the establishment of curricula, the internal administration is laid down in full, and the rights and duties of both government and the establishment are specified,. (Min of Ed and Sci, 1988, p.16) In addition "higher education legislation in The Netherlands contains a detailed network of regulations on the teaching provided by the establishments and on examinations. These are among the most regulated matters in higher education legislation. Traditionally, a separate part of university legislation has been reserved for conditions relating to the teaching process in

each discipline, including a number of curriculum requirements." (Min of Ed and Scie, 1988, p.35) "The universities need separate approval for every degree course" (Min of Ed and Sci, 1988, p.24) and the government specifies the minimum content of each course. As a consequence "all (Dutch) universities have comparable quality standards and offer more or less the same programme." (Acherman et al, 1989, p.9)

The plan however, is to move away from this highly centralised system of control to a simpler system of institutional autonomy "particularly as regards teaching" (Min of Ed and Sci, 1988, p.23) combined with formal quality control. An initial consultative document was submitted for discussion by educationists, parliament and public in 1985. This proposed replacing the system of detailed regulation with more output oriented funding models which would give the universities greater autonomy and provide a new system of quality control. Among the proposals were biennial plans for higher education and research. The first of these was issued in 1987. It is intended that these plans will be in part responsive to the proposals from the universities themselves. A draft bill was prepared to implement the proposals in the plan. It is now under consideration by parliament. Parliament therefore retains ultimate control. It will review the operation of the system every two years and agree the plans for the next two years. The form that subsequent reviews will take remains to be seen.

The responsibility for the plan lies with the ministry which has a directorate general for higher education and research but two other structures have the possibility of making a significant contribution. The fiorst is the inspectorate of higher education and the second is VSNU, the Association of Universities in the

Netherlands. As far as quality control is concerned there remains some perceived tension between two approaches, an inquisitorial inspection and a supportive, formative review.

Deciding whether objectives have been attained is itself complex. First there is the definition of objectives and the specification of the means by which they are to be attained. Second there is the question of quality, the competence of the graduates. Third do the products of the system match the national needs? Then comes the question of the casualties of the system, the dropouts or those with delayed graduation. There is also the question of unintended social consequences.

The Act of 1986 laid down the specific objectives and goals of the universities. "The objectives of university education

1. university education is a form of higher education, and comprises training for the independent pursuit of scholarship;
2. it comprises preparation for the performance of professional functions for which academic training is required or desirable;
3. it promotes understanding of the field of science and scholarship as a whole.

The goals of the universities (are)

4. teaching and research;
5. the promotion of the transfer of the knowledge acquired through research for the benefit of the community;

6. as a subsidiary goal, the promotion of a sense of social responsibility;

7. the provision of post graduate teaching." (Min of Ed and Sci, 1988, p.15).

Teaching

There is at least the possibility of conflict between the first two objectives. What is the right balance in university education between training for the independent pursuit of scholarship at the discretion of the individual and the preparation for professional functions to meet the needs of the community?

In the Netherlands the question has been resolved by making the provision of university education market oriented. The supply of university education is determined by demand. The students and their parents are offered an unfettered choice. It is government policy as expressed in the Higher Education and Research Plan (HOOP) for 1988-89 "to ensure that individuals have access to higher education regardless of social background or financial resources, but only on the basis of academic aptitude as expressed in formal qualifications and to enter the university ... and the course programme of his or her choice." (Kouwenaar and Stannard, 1988, p9) That is all those who pass the appropriate school leaving examinations in the specified subjects at the required level are deemed to have met the entry requirements and are entitled in principle to enrol in the course of their choice. However availability of higher education is not entirely without constraints.

The supply of higher education provided from public funds is regulated in a number of ways. The first is by setting the level of formal qualifications

required for admission. The second is through the amount of financial support provided to enable students to buy the course of their choice. The third is by the use of a numerus clausus in a few very situations.

Entrance requirements restrict enrolment to approximately 13% of the age group which is comparable to most Western European countries but considerably less than that in the US.

The way that financial support is provided to students is the second means by which the market is constrained. The financial support is provided, and the limits to public expenditure on university education are set, through the right of enrolment and the system of grants and loans. The right of enrolment is generous but does limit the time of study in university at public expense.

The right of enrolment now operates through a voucher system. Eligible students are issued with vouchers which cover most of the tuitition cost for six years. Since the credits required to complete a normal course can be obtained in four years a student has "a reserve which may be spent on extra subjects or saved to pay for higher education at a later date" (Min of Ed and Sci, 1988, p.48) or used to pay for extra years required to complete the degree. The nominally four year courses were rarely completed on time under the old system. Only 6% of the 1982 intake had completed their undergraduate studies by the end of their fourth year of study. (Min of Ed and Sci, 1988, p.338) Rewards and punishments are also built in. Students who complete their course on time earn a bonus which may be accrued and used for additional higher education. On the other hand

students who run out of points pay a progressively higher contribution to the cost of their education.

The grant system covers the 15% of tuition which the students pay directly, the cost of books and instruments and makes a contribution to living expenses. The grant is not sufficient to cover all living expenses, but depending on parental income, a loan or supplementary grant up to a prescribed maximum may be obtained from the government. It too has built in to it some specific limitations to the commitment on the public purse. Grants and loans are only available to students under 30 years of age.

There are two further minor kinds of restrictions on entry. One results from any shortage of capacity and the other is a numerus clausus imposed on the basis of the labour market. Since the slogan is 'higher education for the many' every effort is made to avoid the first kind of restriction. Applications are made to a central office in the autumn preceding the year of enrolment. An attempt is made to balance demand and supply nationally by the universities working collaboratively. Only if this is not possible does the government authorise a limitation and there is then selection for the available places by lot. To prevent this kind of problem arising in the future the government proposes obliging institutions with too few places to provide places for 25% more students than the average of the three previous years.

The second kind of restriction, a numerus clausus based on the labour market, has been applied in only a very few cases like medicine and teaching. There is virtually no element of manpower planning in this system.

Paradoxically more is known about the match between the products of the universities and the world of work than in most other countries. Perhaps, however, it is not a paradox. Full and accurate information such as that available in The Netherlands is a necessary precondition for informed choice.

Figures from the Ministry of Employment and Social Security give the unemployment rate of university graduates by discipline over a seven year period. There are very low rates in Computer Science, Engineering Mathematics and Management Science, but much higher rates in Theatre Studies, Philosophy and Psychology.

Not surprisingly there is debate in the Netherlands about a system as open as this and the subsequent match, or lack of it, between the products of the sytem and the needs of society. "Some people would like to see a kind of entry examination for certain disciplines, others would like to give students more freedom to compose a package of courses adapted to their own talents and interests; still others think that students must be better prepared to make their own choice ... the general feeling is that the provision of information ... is a more adequate solution than government interference." (Acherman et al 1989, p.8)

Questions of quality of university teaching will be taken account of by a new system of quality control. A system of external quality assessment was established in 1985 when the universities were granted greater autonomy. At that time the government required monitoring of universities to guarantee the quality of education and established an Inspectorate of Higher Education for this

purpose. However, it was agreed between the ministry and the universities that quality monitoring is in the first place the responsibility of the university. Consequently the universities set up a joint system of external quality assessment.

The 1988 draft which has not yet been passed into law states in Article 12 "The Executive Board of the institution shall be responsible, as far as possible in collaboration with other institutions, for providing regular assessment, carried out in part by independent experts, of the quality of the work of the institutions. In so far as these assessments are carried out in part by independent experts, the finding shall be public." (VSNU 1989, p.9). However, trial assessments have been carried out since 1987.

The system of quality assessment currently applies only to teaching. There is a separate monitoring of the quality of research carried out under Conditional Financing. However, there is some thought that in time there will be a single system of quality control for teaching and research.

The trial assessments were made on a discipline not an institutional basis and it is anticipated that this will be the basis of quality assessment in the future. The disciplines assessed in 1988 were History, Physics and Astronomy, Mechanical Engineering, Business Studies and Psychology.

Quality assessment has a dual purpose "a) to obtain, by means of an exchange of ideas between the committee of external experts and faculty/discipline, insight into the quality of the education and to contribute to quality management; b) to

account for the level of education to the outside world." (VSNU 1989, p.10) It is therefore both formative and summative.

More specifically, the assessment is concerned with standards and with the teaching, both product and process. It takes account of the students' perspective and that of the faculty and the requirements of society, especially prospective employers.

The evaluation is conducted by a committee established by the Association of Universities. It consists of experts in the discipline, including one from abroad, experts in higher education and others, particularly prospective professional colleagues or employers.

The faculty to be visited carries out an internal evaluation and compiles a self study but only after "informative contact" with the external committee of experts. The Association provides guidelines for the self study but the individual faculty decides how it will be carried out. The self study is expected to be evaluative and not merely descriptive. It should too contain suggestions for improvement. The focus of the report is the educational programme, departmental policy, the structure and content of the programme, the teaching process, what time commitment is expected of the students, support provided and facilities available. Two other aspects of the study are important, the normal management of internal quality assessment and subsequent careers of graduates.

The self study is submitted to the committee and during the course of a two day visit to the faculty discussions take place based on that report. During the course of the visit the committee interviews a range of representatives of the staff and students and visits the relevant facilities. The visit concludes with an oral report of its findings to the faculty by the committee.

A written report is submitted by the committee to the Governing Board of the Association of Universities which is the commissioning authority. A draft will already have been submitted to the faculties so that any factual inaccuracies may be corrected. The report contains a general description of the state of the discipline as a whole and its findings about each faculty. These findings are structured to take account of a specific set of criteria which relate to the topics prescribed for the self study. The association makes the report public and draws it to the attention of the minister and the inspectorate.

The activity is fully costed, both in terms of specific expenditure but also in terms of the time involved.

The process seems to be a rigorous, well thought out review of the whole educational process in a specific discipline though it is too early yet to judge its effectiveness. It is not clear whether the government will accept this procedure or will institute an alternative.

Attention is also given to the other two issues. Detailed evidence is prepared and presented by the Central Bureau of Statistics on the question of drop outs and time taken to graduate. Not only are the success ratios in the first year

qualifying examination and graduation rates calculated by institution, they are also presented by faculty. Success rates in the first year examination varied between universities as a whole from 61% to 95%, and between faculties from 66% to 86%. Graduation factors vary between universities from 58% and 79% and between faculties from 60% to 77%. Those completing the programme in the specified four years varied from 0% to 73%.

The system results in substantial social differences as can be seen from Table 1.

Table 1 Participation in University education by sex and social origin.

	Boys	Girls
Upper middle class	17.7%	12.2%
Middle class	9.8%	5.8%
Lower class	3.5%	2.2%

(Ministry of Education and Science, 198, p.100)

The ministry report comments laconically that "Students from upper-middle class backgrounds still outnumber those from lower-class backgrounds ... This situation seems unlikely to change." (Ministry of Education and Science, 1988, p.100) The same report notes the discrepancy between the sexes and attributes it to decisions made at school. As in many other countries boys tends to specialise in science subjects in high school and girls in languages and the humanities generally. Another report makes a specific comment, "At present a campaign is

under way to persuade women to choose natural science programmes."
(Acherman et al 1989, p.8)

Since decisions about formal qualifications are the responsibility of the school and the examining bodies so, by implication, are questions of social equity and discrimination. Universities admit on the basis of academic qualifications. If there are thereby differential rates of access among young people from different social backgrounds then that is the responsibility of the schools who do the preparing and not the universities which admit all qualified candidates.

In the current Dutch approach the effectiveness of the system is ostensibly defined simply by the total number of graduates. Economy, cost, as elsewhere, is of great concern and is controlled by the places-funds model and the voucher system which relate expenditure directly to participation rates. Efficiency is measured by the time taken to graduate and the number of drop outs. However account is taken of the match between the products of higher education and the needs of society as revealed by the number of unemployed graduates in each discipline and also of the role of social background in access to education.

Research

In accord with the second goal of the universities referred to above, all Dutch universities are research institutions. This research is also very much the responsibility of government. In the Humboldt tradition the universities of the Netherlands were seen as centres of scholarship and

consequently funding for research was included in the block grant from the government to the universities. This is designated the first flow of research funds and in 1985 accounted for 66% of all research funds though there was considerable variation, from 57% in one university to 76% in another. (Min of Ed and Sci, 1988, p.315) Funds from the "first flow" were previously provided in accord with the teaching responsibilities to be spent at the discretion of the departments but most of it is now subject to "conditional funding."

The second source of funding is also the government but it is indirect, through NWO (Organisation for the Advancement of Academic Research). It accounts for 15% of funds. Again there is great variation among universities in the extent to which they depend on this source for their research funding. The contribution of this second flow ranges from 6% of one university's research funds to 21% of another's. (Min of Ed and Sci, 1988, p.315)

Finally there is contract income from governmental and non governmental sources which accounts for the remaining 20% of research funds. As with the other two sources receipts from this source vary between universities from 10% to 26%. (Min of Ed and Sci, 1988, p.315)

As with education these funds are subjected to detailed analysis and reporting. International comparisons in absolute and relative terms are available both for total expenditure and for expenditure within the university sector. There are too

international comparisons of output in the form of publications by areas of research.

Within the country there are also extensive analyses of output. Output is defined as theses, publications of specified kinds and patents. Productivity is reported by discipline, by university, by number of academic staff and by source of funding.

Individual projects are subject to careful quality control. In the case of first flow funding most of the research is now subject to conditional funding. "Projects are initially funded for five years and may receive further funding subject to the assessment by experts of the work conducted." (Min of Ed and Sci, 1989) With second flow funding too "quality is the decisive factor in the allocation of money to research programmes" (Acherman et al 1989, p.6) The individual agencies contracting for the research are responsible for the quality of third flow projects.

However, there is no control on the contribution of research as a whole to development. "A remaining issue is that the quality of research projects might not be the only decisive factor in allocating research money to universities or disciplines. Some people suggest the government should state its research preferences in relation to long term national needs and actual strengths and weaknesses .... Others argue that in the long run 'quality-considerations' will solve the allocation problem. However, many believe that 'directing' research is not applicable to the pure sciences, while making a relatively small level of funds available at a national and institutional level to stimulate promising

programmes, can be considered directive as well, although with a long term perspective. The issue of programming the research effort in a more general way is therefore far from resolved." (Acherman et al 1989, p.8)

The ministry has its own concern. "It is worthy of note that at least 60.7% of all research (funded on the basis of conditional funding and the third flow of funds) was subject to assessment of its social significance." (Min of Ed and Sci, 1988, p.315) "The share of contract research is increasing rapidly, partly due to cuts in government funding and partly due to the growing interest in applied research in certain fields." (Acherman et al 1989, p.6)

The system of conditional funding for first flow research was intended to solve these problems. In 1982 a distinction was made for the first time in funding universities between teaching and research. The bulk of research is now funded on the basis of criteria relating to academic quality and significance and social relevance. The universities submitted cohesive programmes for external assessment. Expert committees comprised of Dutch and foreign experts assessed the quality and significance of these programme proposals on the basis of agreed criteria. Thus, in principle, it was possible to reallocate resources not only within universities but also among them. Since programmes must involve the equivalent of five full-time staff members and must run for at least five years any change is of considerable significance to the department concerned.

In 1987 a number of changes were made. The previous system of submission of proposals for approval was replaced by one where existing research programmes were assessed on the same criteria of quality and relevance. At first universities

could submit proposals in any discipline each year. Now all proposals in each discipline are assessed in the same year. There is a rolling programme of assessments. The previous plethora of ad hoc committees has been replaced by a procedure where all committees are appointed by the Academy of Arts and Science, the Organisation for the Advancement of Academic Research or the Institute of Engineers.

A clearer line has been drawn between the responsibility of the ministry and the universities. Now the universities jointly have the primary responsibility but the minister makes any reallocation of resources among them. As a consequence of these changes the minister guarantees to a university an overall research budget and not individual programmes. The government has no say in the content of research programmes nor in the order of priority assigned to them.

In principle this means that the universities are responsible for policy and quality rather than an independent authority like a research council. Under this system peers conduct reviews, submit recommendations and make suggestions but the ultimate responsibility lies with the universities which are free to pursue policies for which they must ultimately account. The universities by setting their own priorities can establish their own identity.

Conditional funding has had some effects. Quantifiable indicators have come to assume a greater significance. The quantity of research has not increased but the number of publications has. Whether the quality of publications has suffered is not clear.

There is no evidence that the quality of research has improved, nor that priorities have been assigned on the basis of academic, social or cultural significance as they were supposed to be. A ministry publication observes that "the entire decision- making process has been criticised by peer groups who feel that their expert opinion is being used merely to safeguard universities' funds." (Spee and Paardekooper, 1988, p.18) There is concern too that new initiatives may be jeopardised by the concern to obtain approval for safe existing research.

"In practice only a very limited number of programmes have been found to be inadequate in recent years. The assessment results have furnished administrators and peers with little grounds for releasing resources for 'better' or more promising programmes ... The university administrators ... are reasonably satisfied ... This is understandable, given that their budgets are not at all at risk." (Spee and Paardekooper, 1988, p.21)

The potential for reallocating resources to improve quality and relevance does not seem to have been realised so far.

Effectiveness of research in the sense of the quality of the research and the volume of publications is carefully monitored and expenditure is planned and controlled but the assessment of the efficiency of the system in a broader sense, that is the contribution of the totality of the research effort to the development of the economy or the welfare of society is apparently neglected in spite of conditional funding.

Transfer of knowledge and graduate studies

Transfer of knowledge to the community is via science shops and transfer points. "Science shops are based on the idea that universities may be able to provide answers to the problems experienced by members of the public or organisations with limited funds. Transfer points help to find solutions to the problems of industry at cost price. Science shops and transfer points either solve the problems themselves or arrange for the necessary research to be done elsewhere in the university, in which case they collaborate with whoever carries it out." (Acherman et al, 1989, p.7) An overview of centres and networks is provided (Min of Ed and Sci, 1989, pp.365-368) but no statment of evaluation procedures.

A review is also provided of the post graduate teaching programmes mainly in medicine and teacher education (Min of Ed and Sci, 1989, pp.3363-364) but no evaluation is reported.

2. The HBO Sector

Efficiency in the HBO sector, as with the universities, was largely a matter of conforming to the detailed regulations of the ministry. However the HBO institutes were typically monotechnical, that is produced graduates in only one field, were founded and run by non governmental organisations and had close relationships with the relevant professional organisations and consequently had a clearly defined purpose and sense of identity.

Higher vocational education was the subject of separate legislation for the first time in 1986. As noted above, prior to that time it was governed by the legislation for secondary education.

The HBO institutes have not yet developed a system for external quality assessment like that of the universities. Consideration is being given to a system with much the same functions but which would evaluate institutions rather than faculties. There have been a small number of experiments which aim to achieve better understanding of methodology and procedures suited to monitoring teaching. It is hoped that this will lead ultimately to a full programme of quality control.

This new legislation gives greater autonomy to a much smaller number of institutions. 300 small and medium sized institutions have been merged to provide approximately 40 large institutions catering for 90% of the students and a similar number of smaller ones catering for the rest. Funding for HBO institutes, like that for universities, is to be on the basis of a formula taking account of student enrolment and administration with expenditure at the discretion of the institution. In these new, larger, polytechnic institutions the role of the providing organisations and the professional associations is likely to be attenuated.

Under this legislation the objectives and goals were described as follows "The objectives of higher vocational education (are)

1. HBO is a form of higher education and is designed to give a theoretical and practical training for the practice of professions for which higher vocational training is required or desirable;
2. it promotes the personal development and functioning in society of its students;
3. it is directly accessible to school leavers from the higher forms of secondary education.

b. The goals of HBO institutions (are)

4. to provide teaching. Institutes may also be give the task of performing research;
5. to contribute to the development of the professions for which they provide training;
6. to provide post graduate courses. (Min of Ed and Sci, 1989, p.17)

It was put more succinctly in the same document. "The duties of HBO institutes can be divided into the following general categories:
providing HBO degree courses;
running government funded courses, other than degree courses, which are provided for by law;
conducting applied research on a contract basis;
providing courses funded by third parties and promoting the transfer of knowledge to the community." (Min of Ed and Sc, 1989, p.46)

Teaching

The HBO institutions like the universities are market oriented. Each course has to be authorised by the ministry but access to these courses is open to all qualified candidates. The same system of student grants applies as in the universities and carries with the the same incentives for students and institutions to complete the course in the specified time. The numerus clausus applies for education courses.

As with the universities, information is available on unemployment among HBO graduates by sector. In 1987, the unemployment rate in education was high, 37.2%, but it was much lower in other sectors, agriculture 1.9%, commerce 6.2%, health 6.6% and engineering 10.5% (Min of Ed and Sci 1989, p.193)

Research

Research in HBO institutes is not significant though there is an expectation that it will become important in the future. What exists is contract research with clients. "With a few notable exceptions, it is not government funded." (Min of Ed and Sci, 1989, p.57)

Transfer of knowledge

Information is available on the number of projects funded for the promotion of the transfer of knowledge. Twelve projects are listed in HBO institutes as against ten in the university sector. (Min of Ed and Sci 1989, p.283-284)

C. ASSESSING THE EFFICIENCY OF INSTITUTIONS

1. The Universities

Teaching

The effectiveness of teaching is monitored within universities by a formal structure. At the basic level are the departments which are responsible for teaching. Above them are degree course committees. The members are designated by the departments with a majority of them being students. They, in turn, are responsible to an elected Faculty Council. There is a much smaller Faculty Board which among its other duties is responsible for the preparation of the annual report. At the higher level is an elected University Council which inter alia is responsible for internal budget allocation. At the summit is the Executive Board which is responsible for financial control and the preparation of the university's annual report. It is appointed by the minister from nominees of the University Council and the Board of Deans.

The direct control of quality within universities is the responsibility of board of examiners. They carry out the actual testing and are responsible for the awarding of degrees. It is they who are responsible for the maintenance of standards. The composition of the boards is regulated by law. They normally consist of members of the academic staff but in exceptional circumstances include other experts either from within the university or outside it.

The content of the curriculum is the responsibility of the department but it is reviewed by a degree course committee. Consulation with sister faculties on the draft curriculum is compulsory for the universities. Since 1986 there has been provision for non university members of Faculty Boards.

The report of the ministry notes that "the internal monitoring of standards is in its infancy. A few universities are experimenting with teacher assessment and student progress records." (Min of Ed and Sci, 1988, p.53)

Research

There is a similar structure within the universities for monitoring research. Departments are intially responsible for research to Standing Committees appointed by the Faculty Councils. The Faculty Councils approve the research programmes. The organisation and coordination of research is the responsibility of the Faculty Boards. At the University level it is the University Councils which are responsible for research policy and programmes. The introduction of conditional funding seems to have shifted power over the research budget and therefore research programmes from the departments and faculties to the university administration.

Decision making on research programmes may be preceded by consultation with professional organisations or other relevant bodies. The ministry report comments that "Talks between universities and external organisations ... have become more common in the past few years, and this too may well have a positive effect on quality." (Min of Ed and Sci, 1988, p.53)

2. The HBO Sector

There are no structures required by law for HBO institutes comparable to those in the universities. In part at least because these institutions are predominantly private. The law of 1988, however, does require councils like those prescribed for schools. There are separate councils for students and staff. They may make recommendations on a range of issues to the central management or the board of the legal authority responsible for the institute and the competent authority may delegate certain powers to them.

The executive body of the institutes usually consists of its general management while the responsible authority is the board of the organisation which founded it.

The 1986 legislation permits state institutes to elect executive boards and governing councils analagous to those in the Universities.

As with the universities it is the boards of examiners which are responsible for the standards of the degrees and diplomas.

C. Conclusions

This is a period of transition in The Netherlands. Responsibility for effectiveness, that is performing the prescribed functions satisfactorily, has been transferred largely to the institutions individually or collectively. The government report comments "The abolition of regulations with which

educational establishments must comply goes hand in hand with stringent output control. A quality control system will have to be devised both in respect of quantity (results, research output, etc) and quality. In principle the establishments themselves are responsible for this. They report periodically to the government. If they are not active enough in this respect, the government will be able to take over monitoring of standards through an independent higher education inspectorate." (Min of Ed and Sci, 1988, p.25) This "threat" (the report's word) applies equally to the universities and the HBO sector but as reported above the universities have made substantial progress with their system and are vigorously resisting the imposition of government monitoring.

Economy is a matter of concern. The new regulations are designed to ensure that more students complete their courses in the prescribed time. This of course, would provide a double bonus. It would both reduce the cost of higher education to the state and to the individual and would also increase substantially the number of qualified young people on the labour market. This latter consideration is of growing importance now and in the future for demographic reasons.

Efficiency, the relationship between production and cost, is what lies behind many of the changes. Government documents make it clear that, as for example in the case of research, they are concerned with the measurable benefits to the community. "The results (of external quality control) in years to come will be the decisive factor in determining whether government will assume an active role in quality control. Even if it is only by way of contra-expertise, the government is at liberty to form its own boards of inspectors, the threat of which acts as an inducement to the establishments to keep their systems in good order

and not to ignore the results." (Min of Ed and Sci, 1988, p.53) It goes on to say "One implication of this is that the performance of the establishments must be made visible. It is thought that performance indicators can play an important role here if they are meaningful and acceptable to both parties ... The government has been stressing the necessity of a dialogue about choice, form and method of application ... there is still much scepticism because of difficulties being encountered while trying to identify relevant and meaningful indicators." (Min of Ed and Sci, 1988, p.53)

The recent devolving of responsibility to the institutions does not mean that the government has eschewed entirely the stick for the carrot.

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CHAPTER SEVEN

CONCLUSIONS

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The most obvious feature of the preceding chapters is the diversity among the higher education systems and in the approaches to its evaluation in the different countries. In Colombia there is a large private sector in higher education which caters to the majority of students. In Nigeria it is exclusively a public responsibility. In Jordan there are both public and private institutions though the private sector is small and does not reach into the universities. While in The Netherlands the majority of the technical institutions were privately founded and are still privately managed as indeed are a number of universities but they are part of a publicly funded and regulated system.

The degree of central supervision too varies. Malaysia and Jordan report national supervisory structures at the highest level of their political systems. Nigeria and Colombia report structures which operate at some distance from the government. The Netherlands has two sets of structures with the possibility for conflict between them.

It is easy to be overimpressed by these differences for there are similarities both with respect to systems, institutions and evaluations. In all countries for example, there is a division between two sectors, the universities and the technical institutions and in general it is the universities which have the greater independence. All countries too have systems of institutional evaluation. In all countries there is financial control at least of the public sector.

In chapter one reference was made to the conventional distinction between effectiveness, economy and efficiency. That structure will be used in this chapter and applied first to the reports on the systems and then to the institutions.

1 THE SYSTEMS

There seems to be little evaluation of the effectiveness of the system as a whole though there are studies of particular issues. The Colombia report expresses concern about excessive growth of business education programmes in all sectors of the system and the need to encourage research. Malaysia reports tracer studies of graduates and studies of the effectiveness of teacher education programmes. The Netherlands too provides detailed statistics covering numbers of graduates in different subjects and graduate unemployment rates and in research there is a shift to greater emphasis on more immediate economic and social benefit. There are structures in both Jordan and Malaysia but both report that there has been very little systematic study of effectiveness.

The value of higher education appears to be assumed. None of these studies reports investigations of the contribution of higher education as a whole to the development of the country economically or socially. Nor is there any report of evaluations of the extent to which higher education has been successful in producing individuals with the particular skills or competences that the country requires. There is no reference to the development of higher education taking place in the light of detailed manpower planning to meet anticipated needs as is the practice in some other countries. In The Netherlands and in Colombia the

approach is explicitly market oriented with very few planning limitations and no concern for "the diploma disease" and it seems to be so implicitly in the other countries.

The reports contain descriptions of the procedures and mechanisms for measuring, monitoring and controlling the economic aspects of higher education that is its cost, or at least the public sector cost, but it is not clear from the reports what the criteria for determining expenditure are. In most cases the universities receive a lump sum to be spent on the agreed activities rather than a line budget. There are established accounting and auditing procedures for the institutions but it is not clear from the reports how the expenditure on the system as a whole, nor the balance between the two sectors nor the priorities within the sectors are negotiated and approved. What is the basis for the decisions which set the national investment in higher education as a whole and for the various aspects of it? In the Netherlands there is a five year plan but what is the economic basis of the plan? While cost is clearly important in the various countries none of them report a defined set of economic criteria for the national contribution to higher education.

Efficiency is a function of the relationship between effectiveness and economy. If either of those components is missing then the efficiency question cannot be answered. An attempt is made to answer it in The Netherlands by comparing inputs and outputs to those in other countries. If similar comparisons are made elsewhere they are not included in the reports.

Input and output are compared both for research and numbers of students completing their course. It is possible to make comparisons across institutions

and disciplines as the Dutch do but what is a reasonable expectation, a satisfactory return on the national investment? This crucial question is apparently not asked.

Given the resources invested in research what output should be expected? Is the number of publications a good criterion at all? Does the number of publications have the same meaning in different discipline? Indeed is number as distinct from the assessed quality appropriate? Is simple output acceptable as sole criterion or should there be some attempt to measure the impact on the country? These questions are asked in The Netherlands at the institutional level but not at the system level. They do not arise in the reports from the other countries.

2 THE INSTITUTIONS

The effectiveness question is asked about institutions in each country, either by the accreditation procedure in Colombia, the visitations in Nigeria and The Netherlands or the annual reports to the national boards in Jordan and Malaysia. Whatever the adequacy of these procedures in any particular institution or the use that is made of them, and there is some scepticism about this, they exist in all the countries studied. There is a concern which seems to be general about standards across comparable institutions and procedures have been developed to see that they are maintained.

Economy too is another matter of general concern though the form that it takes varies. In four of the five studies there is reference to budgeting and responsibility for expenditure at the institutional level. However, the reference

is to financial control, in at least one case the primary purpose seems to be to prevent peculation. There is no reported concern with the balance between expenditure on different objectives or different programmes. No specified criteria are given. It seems reasonable to assume some degree of competition for resources at all levels, among departments, faculties and institutions. There is no reference to the basis on which these conflicts are resolved though mention is made of the officials or structures responsible for resolving them.

All the questions about efficiency which refer to systems refer equally to institutions. If there are measures of output in teaching or research which make comparisons possible among faculties or departments are they appropriate, fair and adequate? What are the departments in Jordan, Malaysia, Nigeria and The Netherlands asked to put into their annual reports? What is the basis of the Colombian self studies? On what basis are comparison made? The same questions can be asked of faculties and institutions. There is reference in some of the reports to content but not to any system for aggregating and comparing the productivity of departments and for relating these to inputs. No means of calculating a "gross departmental product" is reported. These judgements are reported in some cases as being subjective and appear to be so in others too. Without a common currency it is difficult to compare value.

3 OUTCOMES OF THE STUDY

The purpose of an initial study is not to arrive at definitive conclusions but to explore the issues in such a way the it clears the ground for later more focussed study. This diversity has resulted in national reports which to some extent cover different ground, have different emphases and show concern with different

issues. A future study would take account of this diversity particularly at the stage of preparation.

The guidelines themselves would be prepared not by an individual but by an interregional group of experts comparable to those who wrote the various chapters of this report. This would ensure that the study took account of regional variations both in concerns and structures and that terms used were understood in the same sense by all participants. The guidelines might themselves differ thus building in the possibility from the beginning of the recognition of regional divergences. They would then be the basis of consultation with other countries in the regions.

The revised procedures would be piloted in one, or in a particularly diverse region possibly two, countries. Proper piloting is essential in all studies if inadequate or misleading information is to be avoided but has to be more extensive where the differences among "subjects" is very great. An adequately prepared study would provide accurate and comprehensive information about each country which it would be possible to integrate and interpret.

Second, it has shown that questions about the efficiency of higher education systems are not yet systematically explored in many countries. The study assumed that the questions of efficiency which are of concern in some countries are of universal interest. Apparently they are not. The organised gathering of information to provide a basis for judgement about the effectiveness of systems does not occur in all countries even though there may be structures with this apparent responsibility. Any future study should concentrate on processes, products and the use of these product. The submission of concrete examples of

materials and specific examples of the use to which they have been put should be central to the study and their absence should be taken as evidence of their non existence.

Since it seems likely that there are inter as well as intra regional differences the interpretation and integration of national documents from each region should be the responsibility of an international team rather than an individual.

Third, it is clear that concern about cost of systems is widespread. What is not clear is how decisions about the size of the national investment in higher education as a whole or in its different segments are arrived at. This is a question that has to be pursued more closely in a further study. It is likely, of course, that funding decisions are incremental or decremental and not dramatic and therefore not obvious simply from annual budgets. It is essential therefore that specific examples of funding decisions be gathered.

Fourth, procedures both with respect to effectiveness and cost are more generally reported at the institutional level, but even here there is little specification of content or criteria. As with systems, the emphasis of a future study should be on specific documents and concrete examples of their use rather than structures and the general description of procedures. It should be made clearer what questions are asked and on what basis decisions are made.

Fifth, much of the specific information may not be obtainable from public records though it may not be confidential. Responses to questionnaires may be answered in formal public terms and while accurate may not be as informative as more informal sources. Interviewing by a senior researcher is likely to be a

much more rewarding strategy than questionnaires. Interviews should be considered as the standard procedure for a further study even if it reduces the size of the sample.

Sixth, there is in most countries such a difference between the university and non university sectors that separate guidelines should be prepared for the two sectors and separate reports compiled. It would be desirable to have a member from each sector in the regional teams.

Seventh, the range of responsibilities of universities may be wide as specified in legislation or charters but there is little evidence from these reports that any country looks to issues beyond teaching, research and consultancy. While opportunity to report on the broader concerns should be retained in a future study, it seems difficult to justify the inclusion of lengthy questions on these topics.

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